THE

# MARYLAND FARMER:

DEVOTED TO

Agriculture, Horticulture, Rural Economy & Mechanic Arts.

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## CHINA GRASS OR RAMIE.

If China grass, popularly known as *Ramie*, can be successfully cultivated in our Southern States it will add to our present textiles a new raw material of vast importance to the manufacturing industry, not only of this country, but also of Europe. Soft in texture, strong though brittle in fibre, the Ramie must be placed intermediate between silk and cotton. When planted its growth is rapid and certain. No failure of the crop ever occurs from the changes of the seasons; no insect is yet known as its enemy. So rapid is it also in maturing, that in the extreme South, and on a moist, light, rich soil, from two to three crops, averaging from nine to twelve hundred pounds of clean fibre to the acre, can be grown in one season. It is easily propagated by root cuttings, by layering or by seed. It is a perennial, and therefore needs but one planting, after which it can be regularly cut for many successive years. When matured and ready for the loom, it is used almost entirely for the weft, the warp being of cotton. The fabric is then smooth, durable and has a fine gloss approximating to that of silk, and is of nearly as great strength as that of any other fabric used for similar purposes. It will thus be seen that the Ramie possesses many advantages. There is, nevertheless, a difficulty attending its successful introduction. This difficulty arises from the long and tedious time at present required to separate and clean the fibre and prepare it for the loom. Cotton is picked and ginned, and is then ready for a market. With the Ramie there is more trouble. Formerly its fibre was reduced by chemical means to a manageable condition, but recently, according to the last Patent Office Report, a machine has been invented for this purpose, which, it is cautiously added, "is claimed to be a success." The machine in question consists of a metallic cylinder three feet in diameter, driven at the rate of three or four hundred revolutions a minute. It is provided with transverse bars or knives projected from the perimeter, for breaking up the wood and extracting it from the fibre, in combination with alternate concave and convex table edges. The plants are first subjected to the action of the machine; then soaked in hot water; again pressed between the knives and table edge, and, finally, soaked several hours in a solution of common lye, soap, and water, heated nearly to the boiling point. The first operation strips off the leaves, scrapes away the bark and takes out the woody substance and three-fourths of the gummy matter, and is performed with the concave edge adjusted to the table. The second is simply steeping in water to soften the remaining gum. The convex edges of the knives are next used again to soften and flatten the fibre, which is ready for manufacture after the second steeping and subsequent drying. The process as thus explained may bring out the fibre in excellent condition, but it obviously requires much time, patience and labor, and places the Ramie under a disadvantage which can only be overcome by the introduction and less troublesome means of preparing it for a market.

There are, nevertheless, very great capabilities in the fibre of the Ramie. It is calculated to supply a want long felt for a material which is at the same time cheap, and of a fine, soft, glossy texture. Its product of marketable fibre is much greater than that of any other, whilst the manufactured fabric, as compared with cotton, is in every respect superior. The Patent Office, to which many varieties of the manufactured article have been sent, reports that the beauty, durability and value of the fabrics made from this fibre are incontestable. Having then so much in its favor, and needing only proper machinery for its preparation and manufacture, it can hardly be doubted that eventually the obstacles to its successful use will be met by the skill of some ingenious inventor, but up to this time the experiments in this direction have simply shown the value of the material, whilst entailing a loss on those in England who have endeavored to utilize it. The Chinese method, by which the fibre is cleaned by hand, is too tedious, and is only warranted by the cheapness of labor in that country. Here it would not do at all.

In this country it has been found that the Ramie will grow luxuriantly in the Southern States. The Potomac is its northern limit. Seed planted in the Experimental Garden at Washington grew well, but

proved too tender to withstand the early frosts.—Nevertheless, those of our planters living south of the latitude of Washington who desire to try the experiment of raising Ramie may derive some valuable hints from the method adopted by the Chinese. A light, sandy soil, convenient for irrigation, is selected. Beds four feet in width are dug over and pulverized well. The soil is then pressed down and rolled smooth. They are then watered and pressed down again and rolled smooth. The seed, mixed with fine moist earth is then sown broadcast, and is thus left without any further covering of soil. Light mats are then placed over the beds to protect the young plants when the rays of the sun are most powerful. The mats are kept wet during the day but are removed at night.

After the plants come up the beds are kept clear of weeds, but when the plants are two inches high they are pricked out and replanted in a stiffer soil. They are then well watered and hoed—the watering being repeated every two days. The roots, which are fleshy tubers with a vast quantity of fine fibres, multiply to such an extent as to make replanting, even in field culture, necessary every few years. The harvest is gathered three times every season—at intervals of two months. The second crop is of a finer quality than either the first or the third. The time for harvesting is when new shoots are putting out from the root stock. The matured stems being thus removed, the young shoots constitute the next crop. The seeds are produced on the the main shoots, are gathered in October, dried in the sun, mixed with damp sand and covered with straw to keep them from the frost. Before they are used they are tested in water, and those that do not sink are thrown away as worthless. The best seeds are in color a spotless black. Although evidently not adapted to the climate of the Middle States, Ramie may yet prove a valuable acquisition to the South, and we heartily hope that the experiments now making there may lead to its general introduction, as one of the staples of that region.

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Lime in Soil.—There is said to be carried off from the soil nine pounds of lime in twenty-five bushels of wheat, nine pounds in fifty bushels of oats, and fifteen pounds in thirty-eight bushels of barley.—There are thirty-five pounds of lime in two tons of clover, one hundred and forty pounds in twenty-five tons of turnips, and two hundred and seventy pounds in nine tons of potatoes. Some soils contain an abundance of lime for a thousand years, while other soils require an occasional application of lime as a fertilizer.—*Germantown Telegraph.*

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Toads are capital helpers in taking care of vine patches.

## GREEN SOILING STOCK.

The practice of green soiling stock has prevailed for many years quite extensively in Europe, and wherever it has been adopted it has been found not only to effect a great saving in point of economy of food, but also to be of still greater advantage in the accumulation of manure that would otherwise have been wasted. We do not know whether our farmers and planters can be induced to try the experiment, but it is certainly one that promises well, and would save a vast amount of inside fencing which has to be kept up simply for purposes of pasturage. Where there is abundance of wood to be had for the cutting, and where the old worm fence still maintains its ancient supremacy, this matter of fencing may not perhaps be of much moment. But where wood is becoming scarce, and the fencing stuff has to be bought, every pannel of post and rail costs very nearly a dollar; so that to divide a large farm into suitable fields is rather an expensive business. Of course, to those who have extensive ranges for their cattle, outside of the limits of the land which is under the plough, the idea of green soiling stock will be regarded with disdain. But to others who are not so favorably situated, and who desire to make the most of the land they own, and to increase its fertility, the European system of stock feeding, if we may so term it, may appeal much more favorably. Their writers claim for it six distinct advantages, which we find enumerated as follows:—1st. It saved land. 2d. It saved fences. 3d. It economized food. 4th. It kept cattle in better condition and greater comfort. 5th. It produced more milk; and 6th. It increased the quantity and quality of manure—all of which are clear gains if the facts be such as are reliable, and of this we have no doubt whatever. They are testing the matter even now on the prairies of the West, being driven to it by the want of fencing stuff; and so well are the experimentalists satisfied with the results, that they would not undertake to fence their fields, for pasturage purposes alone, if the timber was presented to them gratuitously to do it with. This speaks well at least for the system. We have a notable instance, moreover, to the same effect in Massachusetts. It has been often alluded to before, but it will bear repetition because it is the record of an experience of twenty years, and because the gentleman who has practised it for so long a period, has very recently declared anew his satisfaction with its beneficial effects. The Hon. Josiah Quincey adopted the system of summer soiling stock as early as the year 1814, and continued it until he left his farm in 1822. He returned to it again when he resumed the management in 1847. He declares it to be his experience that, on good arable land, twenty

head of cattle can be kept the year round in good condition, and with more profit, less labor and less trouble, upon seventeen acres of land, by soiling them, than on three times that number of acres under the old mode of pasturage. The great desideratum to be accomplished is to produce a regular succession of crops of succulent food, and the way in which this is done is as follows :—Allowing about two squares of ground to each cow to be soiled, he sows—April 5th to 10th—Oats at the rate of four bushels to the acre; April 20th—Another sowing of oats or barley; May 5th to 10th—A third sowing of the same; May 10th to 20th—Indian corn in drills at the rate of three bushels to the acre; May 25th—A second sowing of corn; June 5th—A third sowing of corn; June 15th and 25th and early in July—Barley at the rate of four bushels per acre.

These crops, in the latitude of Massachusetts, are fit to cut for soiling as follows :—The first, second, and third sowings of oats, from early in July until the middle of August. The corn follows in succession till early in September. The late barley continues the supply of succulent food until about the 1st of November, when the usual root crops come into use.

Against the cost of raising, cutting and distributing the food to the stock, Mr. Quincey places the increased quantity of manure that is made, which he considers "an ample compensation for all this expense;" leaving the savings of land, of food, and of fencing stuff, a clear gain.

We have nothing to add to this beyond the expression of a wish that the system of green soiling stock should be as fairly tested in other parts of the country as it has been in Massachusetts. We do not say it will succeed as well, or that it will ever be generally adopted. But that by proper management it can be turned to great advantage on small farms, and that the fertility of the soil can be greatly increased thereby, we feel perfectly well assured. Of course, it requires some thought, and a systematic arrangement of the labour of the farm; but when these details are once perfected, the work will go on quite as smoothly as it does under the usual rotation of crops, which are cultivated on a large scale.

To Discover the Actual Value of Marl.—Take twenty pounds of dried marl and sprinkle it with diluted muriatic acid until it ceases to effervesce. Heat this mixture to nearly a boiling point and then filter first through coarse cloth, then through paper until nearly clear. Take the residue left upon the filters and wash clean and dry it. Its weight deducted from the twenty-five pounds originally weighed will give you the amount of carbonate of lime dissolved by the acid.—*Farmer's Gazette.*

## SHENANDOAH VALLEY IN VIRGINIA.

*To the Editors of the Maryland Farmer :*

We find in late days, the Valley in Virginia, is called the Valley of the Shenandoah, a name which does not express the length and breadth of the great Valley in Virginia. It is true that the Shenandoah river skirts a small part of the eastern side of the Valley in Virginia, but to suppose, that from the fountain head of the Shenandoah to its mouth at Harper's Ferry, embraces the extent of the Valley in Virginia, is a great mistake. It does not embrace one-half its length, and before the late war if some person had spoken of the Shenandoah Valley to one of the aged citizens of this Valley, they would very naturally have supposed the speaker to be refering to some of the smaller valleys—such as we find along the course of the Hawksville, in the county of Page, or the northern branch of the Shenandoah, in the counties of Shenandoah and Rockingham. No person, well informed as to the extent of the Valley in Virginia, and also of the Shenandoah river, would have called it the Shenandoah Valley, but the work of armies and the disposition of generals to write dispatches from fountain-heads, never before heard from, christened the Valley in Virginia to wear the name of the Shenandoah Valley. I know the entire length of this Valley.—It extends in length at least 200 miles from Harper's Ferry, and varies in width from 5 to 35 miles.

The character of the soil is limestone, sometimes you find slate. The lower Valley produces more wheat than the upper part, and in many cases better grass, than the upper part of the Valley. This is because there is more sand from Staunton up.

Land range from $40 to $60 and $100 per acre.—Good unimproved land can be purchased for $40 per acre; slate land at lower figures.

Some of the lime land is rough, but this roughness is of little moment. All the lands of the Valley can be cultivated.

Winchester, 31 miles from Harper's Ferry, and Staunton, 123 miles from Harper's Ferry, are the chief towns in this Valley.

The town of Lexington, in Rockbridge county in this Valley, surpasses all other towns for institutions of learning. At Lexington is located Washington College with Gen. Robert E. Lee, as its president. The Virginia Military Institute, not inferior to West Point, is also located there, besides a number of other school.

The population are descendants of English, Irish, Scotch, Dutch and Sweeds.

Yours, &c. Wm. W. Wirtz.

Experiments seem to prove that fence posts set up the reverse way from which they grew, will last the longer.

# Our Agricultural Calendar.

## Farm Work for March.

The winter has thus far been so mild that there is every prospect that the spring will open early. Indeed, even at this time, the frost has not penetrated the ground very deeply, and a few days of warm weather would render all but the heaviest clay soils ready for the plough. On sandy soils and light loams the spring work might, and probably did commence in the Southern portions of Maryland, a week or two ago. However this may be, with a few days of pleasant weather, and the prevalence of drying March winds there can be no doubt that regular farming operations can be successfully commenced, and if pushed forward with proper energy the gain in time, not less than the prospect of a larger acreable product at harvest time, will be commensurate with the subsequent character of the season. It is well, under any circumstances, for the farmer to be forehanded with his work. To get his crops in at the proper season, and after thorough preparation of the soil is one of the primary conditions of profitable cultivation. A season lost can never be wholly regained, even by the most vigorous exertion, and moreover, delay at the commencement, throws the whole work of the season more or less back. Time now is almost as valuable to the farmer as a good bank of manure, and timely planting may, in some respects, be regarded as equivalent to extra manuring. To catch the earlier spring rains, and thus advance quickly the young plants during the first stages of the growth so that they may have fully established themselves in the soil, and thrown out a goodly network of roots before continuous dry weather sets in, is what all who undertake to work their land, to the best advantage, should endeavour to do. The greatest check that vegetation has to encounter in our climate arises from long summer droughts, the best preventives are deep ploughing and early planting. The work for the month is as follows:

### OATS.

It is a mistake to grow oats on a poor soil. The crop occupies the ground for so short a time, compared with those that are seeded in the fall, that it needs the stimulus of fertile land to render it really profitable to cultivate. Oats grown on soils that are rather poor or are not adapted to their habits, are sure to be deficient in quantity and poor in quality.

*Soil and Preparation.*—Oats thrive best in a rich heavy and rather moist cool loam. The largest yield per acre has been taken from low lying pasture lands which have been broken up for the purpose of renewal. The principal constituents of the oats are potash, the phosphates and silica. The latter which average over fifty per cent. of the grain and nearly fifty per cent. of the straw, is freely obtained from almost any soil that contains a moderate admixture of sand, and the use of caustic lime will readily render the silica soluble. On the other hand, successive crops of cereals, or of tobacco, very soon exhaust the soil of its potash and the phosphates, and these must be returned to it either by manures, or commercial fertilizers, or by green crops, especially clover, ploughed under. Oats contain by analyses:

| | *Grain.* | *Straw.* |
|---|---|---|
| Potash | 12.09 | 24.05 |
| Soda | 00.00 | 4 04 |
| Lime | 3.07 | 8.03 |
| Magnesia | 7.07 | 2.08 |
| Phosphoric Acid | 14.09 | 3.00 |
| Sulphoric Acid | 1.00 | 4.00 |
| Silica | 53.03 | 40.00 |
| Chlorine | 00.05 | 4.07 |
| Iron, Carbonic Acid and loss | 00.00 | 8 03 |
| | 100.00 | 100.00 |

The above analyses shows that wood ashes and the commercial phosphates, or their equivalent, are of prime importance in the growth of this crop.—Deep ploughing and thorough pulverization of the soil are also of great service in facilitating the growth of the plants by enabling the roots to ramify freely in search of the plant food which is necessary to the vigorous growth of the stem and the perfection of the grain.

*Manures and Composts for Oats.*—When the soil is deficient in the organic or inorganic constituents, which by analysis are found in the ashes of the oat, the ingredients may be supplied by either of the following mixtures. The proportions are for one acre of land:

No. 1. 5 two-horse loads of stable manure; 10 two-horse loads of woods' earth or marsh muck; 5 bushels of unleached wood ashes, and 1 bushel of plaster.

No. 2. 8 bushels of bone dust; 10 bushels of leached wood ashes; 2 bushels of salt, and 1 bushel of plaster.

No. 3. 200 pounds of phosphatic guano; 10 bushels of leached wood ashes, and 1 bushel of refuse salt.

No. 4. 10 two-horse loads of barn-yard manure; 4 bushels of crushed bones; 5 bushels of unleached wood ashes; 1 bushel of salt, and 1 bushel of plaster.

In all cases these ingredients should be mixed intimately, scattered broadcast and ploughed under.

*Time of Sowing.*—Sow oats as soon as the frost is out of the ground.

*Quantity of Seed to the Acre.*—From two to three bushels sown broadcast, harrowed, and cross-harrowed. Grass seeds may then be sown, and to advantage, and the work completed by the bush harrow and the roller.

### SOWING CLOVER SEED.

If an opportunity did not occur to sow clover seed on the winter grain in February, the earlier this work is accomplished in March, so as to take advantage of the spring rains, the better.

*Quantity of Seed to the Acre.*—Sow one peck of clover seed to the acre, if seeded alone, and even when seeded with the finer grasses it will not be found too much. Perhaps, however, 12 pounds of clover seed to a bushel of orchard grass, lightly harrowed in and well rolled, may be regarded as sufficient.

*Plastering Clover Fields.*—Scatter one bushel of plaster to the acre over every field that is already set in clover.

### PREPARATION FOR CORN.

As soon as the oats are in, if the work has not been done earlier, proceed to haul manure from the barn-yard and deposit it on the land to be planted in corn. Push the work forward as rapidly as possible, and as fast as the manure is broadcasted plough it under, and follow the plough *immediately* with the harrow to prevent the land from hardening into clods.

*As to Soil.*—The best soil for corn is a light, deep, rich sandy loam. If stiffer soils are of necessity used, they should be deeply ploughed, and, if possible, cross-ploughed and harrowed and cross-harrowed until the land is in the finest possible condition. A grass sod well manured and deeply ploughed will give a vigorous start to corn, and by the gradual decay of the vegetable matter turned under will keep the plant with proper cultivation in a healthy growing state throughout the whole season.

### BARLEY.

So little barley is cultivated in this latitude and the crop is so uncertain that the principal stock of barley for malting purposes now comes from abroad. In Pennsylvania, however, some barley is grown and the yield is sufficiently large to render its cultivation profitable at the high price which barley now sells at in the market.

The best soil for barley is a rich, dry loam. It should be ploughed deeply and thoroughly pulverized with the harrow. The soil can scarcely be too dry at the time of seeding. If a shower sets in soon afterwards the seed will speedily germinate, and when the young plant is once well established it will stand a continuous drought better than any other cereal.

*Quantity of Seed to the Acre.*—Sow from two to two and a half bushels of barley seed to the acre.

### MILCH COWS.

Heifers, working animals and sheep, should now be carefully attended to, as recommended last month.

### EARLY POTATOES.

Potatoes for early use cannot be gotten in too soon after the frost is out of the grouud. If the land is in good condition let it be ploughed very deep and made as light as possible by frequent harrowings.—Lay off the furrows two and a half feet apart and six inches in depth. In these furrows place four inches of long barn-yard manure. The sets should be cut from large well grown potatoes, and left for a short time on the barn floor to dry off the superfluous moisture. When ready to plant drop them along the drill eight inches apart, and cover with two bouts of the plough. As soon as the plants come up dust them freely with a mixture composed of four bushels of wood ashes, one bushel of woods' mould and one bushel of salt, repeating the process as the vines advances in growth. Earth up well and see that the intervals are kept clean with the shovel plough and the cultivator.

### FENCES.

Examine and repair these if necessary.

### ORCHARDS.

Trim out all dead wood as early in the month as possible, and dress the wounds with a mixture of cow manure and lime to keep out the wet. Manure and dig round the trees as advised last month.

### Planting Orchards, Shrubbery, &c.

This work should now be done, and pushed forward rapidly to completion. See that the holes are large and deep, the soil light and rich, and the whole process carried out in a workmanlike manner.

## Oden Bowie, Governor of Maryland.

Though we are careful to exclude politics from our columns, as not germaine either to the *Turf*, the *Field*, or the *Farm*, we cannot forego the pleasure of congratulating the people of Maryland upon their choice of a chief magistrate and the brotherhood of the turf upon the selection of one of their number for so distinguished a position. Governor Bowie's elevation is but another proof of the old turf maxim that "blood will tell;" he is among many of his name and kindred who have held distinguished positions in State and federal politics; the second of the name and blood who has filled their seat in the venerable State House at Annapolis, which never, with two or three unfortunate exceptions, has been filled by other than the best bred men of the State. Years ago, in Mexico, under the iron hail which swept his comrades from his side in the bloody streets of Monterey, the conspicuous gallantry of young Bowie secured him a place in the hearts of the people of Maryland; he has held it ever since; they have made him their Governor. What better proof do we want of the truth of the old turf maxim, "*Blood Will Tell.*"—*Turf, Field and Farm.*

# Garden Work for March.

The work to be done in your garden now claims special attention. One of the conditions of success in growing vegetables to perfection is thorough tillage. Another is high manuring with rich and well rotted manure. On the observance of these two rules depend not only the quality of the vegetables to be raised but also their quantity. In all garden operations, moreover, neatness and cleanliness are indispensable, and in seasons of drought the growing crops should be watered liberally, the best time for this being at the close of the day and after the sun rays cease to scorch the vegetables, as every drop of water, when the sun is at its height, acts as a lens to burn the leaf on which it rests.—The following matters claim attention.

*Sowing Seed.*—Choose a good warm border facing the south and well protected on the north and west, and then prepare a bed for the sowing the seed of such plants as are to be pricked out and replanted on a more extended area when the proper season arrives. Let the bed be thoroughly dressed with well rotted manure, deeply spaded, and raked over until the soil is as light as it can be made. When this has been done, draw as many drills, half an inch deep and six inches apart, as may be necessary to receive the different varieties of seed that are to be sown. These will consist mainly of the seeds of the Cabbage, the Tomato, the Lettuce, and a sprinkling of Radishes. Expert gardeners will also add the seed of Cauliflower and Brocoli. When the plants come up water them of an evening, in dry weather, with a decoction made by putting a bushel or more of rich stable manure into a hogshead or barrel, filling the latter with water and letting it stand in the sun to temper it.

*Early Peas.*—As soon as the frost is fairly out of the ground select a portion of the garden having a warm exposure, and drill in a few rows of early peas; make the drills four feet in double rows apart and three inches deep. Sow the peas thickly along the drills, cover them well with earth, and pat down the soil about them with the back of the spade.—When the peas are a few inches high hoe earth to them and support them with sticks.

*Plants in Frames.*—See that these have abundance of air on warm days, to prevent the plants from spendling, and water freely with tepid water of evenings.

*Bunch Beans.*—A few rows of bunch beans may now be planted.

*Early Spinach.*—Make the soil very rich with well rotted manure, dig it deep and rake it well, and drill in a few rows of spinach, placing the drills twelve inches apart and the seed about an inch deep in the drill.

*Carrots, Parsnips and Beets.*—For an early crop of these a warm portion of the garden must be chosen. Fresh manure ought not to be used for either carrots or parsnips, although the soil should be rich and deeply spaded. For beets, well rotted manure is of advantage, and also a liberal dressing of refuse salt. The rows for carrots should be from ten to twelve inches apart, and one inch deep; for parsnips, fifteen inches apart, and for beets not less than eighteen inches apart. Cover the seeds with the back of a rake, and press the soil lightly about them with the spade.

*Small Salading.*—Sow small salading at intervals of a week apart throughout the month.

*Celery.*—Prepare a warm border for seeding down to celery for transplanting.

*Siberian Kale.*—Select a small bed and manure and prepare it well, and sow kale seed for sprouts.

*Asparagus.*—Clean off the beds, and fork into them some well rotted manure mixed with ashes.—Then strew the bed liberally with refuse salt. New beds may also be set out this month, or the seed may be sown.

*Sowing Onion Seed.*—Drill in onion seed early this month.

*Red Peppers.*—It is rather too early for peppers, but if the season promises to set in warm, a few rows for a first supply may be seeded in a well protected border.

*Early Potatoes.*—Get these in as soon as the frost is out of the ground.

*Rhubarb or Pie Plant.*—These plants may yet be set out, or new beds formed for raising plants from the seed.

*Gooseberries and Currants.*—This month new plantations of these excellent fruits can be made, or cuttings may be set out. It is also the proper season early in the month to prune carefully the bushes already in bearing, and fork in manure about the roots.

*Raspberries.*—These should now be trimmed and staked. The earth should be loosened about the roots, and the soil enriched with manure.

*Strawberries.*—Strawberry beds now demand immediate attention. They should be cleared of all weeds and refuse stuff, thinned out, dressed with woods' earth mixed with a very small quantity of well rotted manure. Sprinkle the bed with wood ashes and spread either tan or straw, or leaves from the woods between the roads. Water freely during the dry season, and even during the period of blossoming simply taking care that the waterings are done in cloudy weather or after sunset.

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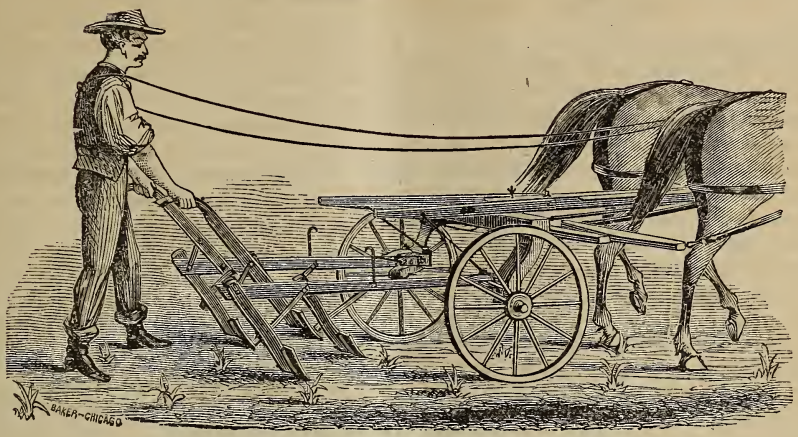
Some one says if salt is kept before a horse in the stable, he will not gnaw his manager. Trial will tell.

## DEERE'S WALKING CULTIVATOR.



The above Cultivator was exhibited by Deere & Co., of Moline, Illinois, at the recent Iowa State Fair. The main features of this Machine are as follows:

The wheels are large, (30 inches in diameter) promoting steadiness and ease of draft; and the hubs being cast on a chill are very durable.

Reversable blocks are attached to all the shovels, so that they can be turned to or from the corn; and width between shovels can be readily changed by means of a slot in the axle.

The shovels are held in position by means of wooden pins, which shear off when either shovel strikes an obstruction.

By the use of a split tongue the operator has an unobstructed view of the row of plants, and the team kept at greater distance from the corn.

The patent double acting clevis secures the plows in a perfectly upright position, and affords complete lateral and vertical movement of the shovels.

### A Voice from South Carolina.

MEADOW WOODS, S. C., Feb. 8, 1869.

*To the Editors of the Maryland Farmer:*

The people of your glorious old State have evinced so much sympathy for the suffering South that I have no doubt anything from that region will prove interesting. Our people have been sadly misrepresented by the carpet-baggers and government spies in the shape of picture venders, book agents and sewing machine humbugs who have infested the country. The vilest slanderer perhaps we have had is the Governor, "so called," who in his proclamations, from time to time, has stated as facts what everybody to the manor born knew to be false. The truth is, the Governor has lived in perpetual dread of Ku-Kluxes, and has been victimized by wags. I can soundly assert and prove that no such organization as Ku-Klux, or in fact any secret organization, save "loyal leagues," has or does exist in several counties spotted by His Excellency. We want peace —all we ask is to be let alone, to be allowed to manage our own business in our own way. We wish to ignore politics, to get rid of demagogues, and work out our own destiny.

A fallacious idea is being ventilated in the Northern papers that the high prices of cotton is rapidly restoring the country to its ancient prosperity.—There could be no greater mistake. The profits of the planter are absorbed by the wages of the laborer and villainous taxation to feed the parasites who are fastened upon us. We have nothing but officials—it is the old fable of the fox and the flies—one swarm is only driven off to make room for a more voracious one. The negroes spend their wages before the holidays are over in riotous living, gew-gaws and gim cracks. A great deal of our money goes off for bacon and corn, articles we once produced. Those who have not taken the benefit of that "impenetrable bomb proof," the bankrupt law, spend their money as fast as they can, for fear the sheriff may pounce upon them—nobody thinks of paying old debts or of investing their momey in improvements for the future, because no one feels that there is any security for the enjoyment of his earnings—there is no cumulative industry and never can be until we feel there is some permanency in our institutions.

The high price of cotton has demoralized the country—labor has advanced and become more unreliable. All ideas of reform and diversifying industry are abandoned, and cotton is the only thing talked about. The wholesome ideas of rest, rotation, clover, green manures, more stock and more comfort, have all been swallowed up by this hoary sinner, who still calls himself, King.

If we could be reconstructed upon proper principles the evil would soon cure itself. Our glorious climate and resources undeveloped, would attract capital and population, and our deserts would blossom like the rose. I hope the day may not be far distant. I would be glad to see your valuable *Farmer* upon every table in the South—its monthly lessons would be of incalculable advantage. X.

## THE ILL EFFECTS OF TILLING LAND WHEN TOO WET.

*To the Editors of the Maryland Farmer :*

While driving recently in the pursuit of my profession in rural districts, I saw what I much regretted, and not only here and there, but on a large number of farms, many of the owners of which occupy high positions among the yoemanry of this State, for their skill and sagacity in their farm management. I saw a large number of plows engaged in plowing heavy tenacious soil, in so wet a condition, that when the plow was in a condition to "scour," the furrow slice was left as close, compact and smooth as if it had been thoroughly baked down in the use of a plasterer's trowel, and in many places water stood in the furrow; and where the plow had been neglected, and become so rusty that it could not be made to "scour," it ran like a log through the wet puddle, crowding the furrow slice to one side and half inverting it, leaving the land in a condition in some respects worse than that well inverted, as it was so compressed in its wet state as to make it nearly as hard when dry as that well turned, and large portions of the sward was left in a condition to grow nearly as well as if there had been no attempt at tillage.

I have observed the effect of such tillage on such lands for many years, and I have found it very injurious; the productiveness is greatly impaired, and the labor of planting and cultivating the crop more than double what it would have been had the tillage been properly performed when the soil was in a suitable condition.

I have also observed that the ill effects of this injudicious tillage was apparent throughout the entire rotation, and the natural friability of the soil is never restored to land thus treated until it is tilled in a proper condition in early winter, and allowed to lie rough through the winter, that the pulverizing influences of frost may be fully availed of.

My experience of forty years in tilling tenacious clay lands, has enabled me well to understand all the difficulties attending their proper culture, particularly if the area be large and the tilling force light, which is a very common condition of things, even among those who are called good farmers.

There is rarely a period of more than three or four consecutive days duration, that such soils are in a proper condition to plow, and that brief period does not occur more than once or twice a year, some years; hence, it is impossible, with the proportion of land to be tilled and the force with which to till, that but a small proportion of these lands should be tilled when, and as they should be, but a portion must be worked when rather too wet and another when rather too dry, this is unavoidable.

But it is a matter of such grave importance to the owners of soils of so capricious a nature, that they should be worked in the most favorable condition, that it is more judicious to curtail the tillage crop of a season and allow the land to lie in grass rather than plow it in the extreme state of unfitness that I have described, and it will be found much more satisfactory to all who will act on that principle.

The most tenacious clay may, however, be so improved in condition by properly underdraining and sub-soil plowing that the period between the extremes of wet and dry may be so protracted that with the ordinary team force of the farm, it may be plowed in time for the culture of a particular crop, in good condition. But a system of underdraining that will, in conjunction with the use of the subsoil plow, effect the change of condition in a soil that I have described, is expensive, and involves the use of an amount of capital rarely possessed by the common farmer; that is, for the application of the system only to a limited extent at first. Yet I have never known an instance where this system was adopted, and the execution was conducted with skill, judgment and economy, but that it was fully remunerative and so satisfactory that it was continued.

The operations and success realized in draining and improving the most tenacious clay land, by that model farmer of N. Y. Mr. John Johnson, with which all regular readers of agricultural journals are familiar, has thoroughly established the fact that the system that I have recommended for the improvement of the character of lands under consideration, may be embarked in with safety. Mr. Johnson's draining has all been effected by the use of tiles.

I have used both tile and stones, also other material for underdraining, for many years, and my experience will warrant me in confidently recommending tile, when judiciously used, as the best and most economical draining material.

It is rare that I use them larger than two inch opening. I use round pipe in lengths of one foot each, and am now engaged in engineering a piece of ground of 10 acres area which is nearly level, and very wet, stiff clay, in which I placed the drains 16 feet apart, and subsoil to the depth of 12 inches.—The round, two inch draining tile, cost in Baltimore market $15 per thousand feet, and where the drains require to be placed as closely as one rod apart it will require about 2800 feet per acre, but this is the maximum amount required in the most difficult soil to drain.

The cost of excavating the drains depends entirely on the facilitities at hand with which to execute it. By hand labor, in ordinary clay soil, if worked when the soil can be excavated by the spade, the

drains may be dug, the tiles placed, and the earth returned at a cost of 50 cents per rod, for ditches two feet in depth, which is sufficient where no spring water is to be removed, particularly if the land is sub-soiled to the depth of 12 inches as it should be.

J. Wilkinson,
L. G. & R. A., Baltimore, Md.

## ABOUT BEANS, SWEET POTATOES AND TOMATOES.

*To the Editors of the Maryland Farmer :*

In the last No. of your journal of agriculture I alluded to the cultivation of the Bean, &c., and particularly recommended the small round White or Cockstone for the navy or for culinary purposes, which are cultivated in this State by farmers and sold to produce dealers, and from the fact that samples are frequently much mixed, are called by those gentlemen simply white beans. The Cockstone bean in its purity is the size and shape of the largest round marrowfat Pea.

Different varieties of beans if planted less than 300 *yards apart will mix*, which is a fact well known by garden seed growers.

The large white kidney, and dwarf white cranberry bean (erroneously called by some white marrow) are about as productive and saleable as the former, and can be had of seed merchants in the utmost purity. Planters who have tobacco or ventilated out-houses, have no occasion to stack the beans in the field, as previously recommended, but may cart them immediately to those buildings, and spread them a foot thick on poles arranged around, and the layers of beans 2½ feet apart, the bearings as high as the roof will admit. Beans are liable to be effected by the "Borer," particularly the first crop, which can be prevented by packing them in tight barrels, previously fumigated, with brimstone or charcoal.

Beans at the present quoted price are certainly a profitable crop. But I doubt if the crop will yield a larger profit than the Sweet Potato, or Tomato. Drying sweet potatoes appears to be an established fact, if so, they can be shipped with success to any part of the world. The Tomatoes grown at the South can be landed in Eastern and Western cities before the eastern fruit will be half ripe, consequently will command the highest price, say average seven dollars per bushel. Make your calculations gentlemen, and "up and at them." Plowman.

*Baltimore County, Md.*

To Prevent Rust in Plows.—A correspondent in the *Rural World*, says: There is nothing so good and handy as patent axle grease. I have used tal low, paint and Japan varnish, but the axle grease is always convenient and easily applied.

## SHENANDOAH VALLEY, VIRGINIA.

*To the Editors of the Maryland Farmer :*

I have compiled the following answers to the series of questions propounded by A Pennsylvanian in the February number of your valuable monthly.

1st. The great Valley of Virginia, or Shenandoah Valley, includes the region lying between the Blue ridge and the crest of the Alleghany Mountains, both of which ranges run nearly from northwest to south east; this region extends through the State a distance of 300 miles, and varies in width from 40 to 70 miles in some places, separated by ridges into two or more valleys. There are in the great Valley 29 counties, named as follows: Alleghany, Augusta, Berkeley, Bath, Botetourt, Carroll, Clarke, Craig, Floyd, Frederick, Giles, Grayson, Hampshire, Hardy, Highland, Jefferson, Morgan, Montgomery, Page, Pulaski, Pendleton, Roanoke, Rockbridge, Rockingham, Shenandoah, Smyth, Warren, Washington, and Wythe.

2d. A large proportion of the soil is limestone, which is deep and rich—there is also slate, freestone, sandstone, soapstone and mixed soils, some of it free from stones and a good deal of it stoney—in fact there is almost every kind and variety of soil.

3d. There is an abundance of running water and springs in the valley, many of the springs are large enough to run a mill—the kinds of water are limestone, freestone and mountain, besides sulphur and other mineral water. For building purposes, the limestone is suitable and abundant. The timber is principally black and white oak, walnut, hickory and pine.

4th. Unimproved or wild lands are worth from one to ten dollars per acre; improved lands without buildings is worth from $10 to 50 per acre, according to quality of soil, location, &c., and improved land with buildings, &c., can be bought at prices ranging from $15 to 75 per acre, according to richness of soil, location, value of buildings and other improvements.

5th. The following are the best Counties for raising grain :—Augusta, Berkeley, Clarke, Frederick, Jefferson, Page, Rockbridge, Rockingham, Shenandoah and Warren. The other counties in the Valley are most suitable for grazing.

6th. The prices of produce at Winchester, at this time are as follows :

| | | | | | |
|---|---|---|---|---|---|
| Wheat, | $ 1.80 | to | $ 2.00 | per | Bushel. |
| Corn, | 80 | " | 85 | " | " |
| Rye, | 1.25 | " | 1.35 | " | " |
| Oats, | 50 | " | 60 | " | " |
| Hay, | 15.00 | " | 18.00 | " | Ton. |
| Potatoes, | 1 00 | | | " | Bushel. |
| Butter, | 35 | " | 40 | " | Pound. |
| Eggs, | 20 | | | " | Dozen. |

7th. Wages are as follows: Farm laborers by the year, $8 to 15 per month. By the day 75 to $1.00, without board. Carpenters, stone masons and bricklayers have from $2.00 to $3.00 per day.

8th. The best part of the Valley to settle in we think is the lower valley of which Winchester is the centre.

9th. The original settlers of the valley were principally German and Scotch-Irish. A large number of Pennsylvanians have settled in the lower valley (about Winchester) since the war.

10th. The principal town in the valley is Winchester, its population is about 6,000. Staunton, Harrisonburg, Woodstock, Front Royal, Luray, Lexington, Charles'own, Martinsburg, Moorefield, and Romney, are considerable towns and county seats. The lower valley is traversed by the Winchester and Potomac Railroad, the central valley by the Manasses Gap Railroad, and the upper valley by Virginia Central, and Virginia and Tennessee Railroads. The Baltimore and Ohio Railroad Co., are now constructing a Railroad from Winchester to Strausburg. The Cumberland valley Railroad Co., of Pennsylvania are now surveying a Road from Hagerstown, Md., to Winchester, Va., and the Loudon & Hampshire Railroad Co. are pushing their road towards the coal fields, west of Winchester, as fast as their means will permit. J. H. McK.

*Winchester, Va., February* 10, 1869.

FOR THE MARYLAND FARMER.

## LIEBIG ON IGNORANCE AND KNOWLEDGE IN FARMING.

J. F. WOLFINGER, MILTON, PA.

Liebig in discoursing on the effects of ignorance and knowledge in farming in his "*Natural Laws of Husbandry*," says:

"In human society ignorance is undoubtedly the fundamental, and therefore the very greatest evil. The ignorant man, however rich he may be, is not protected from poverty by his wealth; while the poor man who has knowledge, becomes rich by its means. Unconsciously to the *ignorant farmer* all his industry, care and toil, only hastens his ruin; his crops gradually diminish, and at length his children and grand-children, no wiser than himself, are unable to maintain themselves upon the homestead where they were born; their land passes into the hands of the man who has knowledge, for by knowledge capital and power are acquired, and by these, as a matter of course, the helpless are expelled from the inheritance of their forefathers."—(page 230.)

There is no profession which, for its successful practice, requires a larger extent of knowledge than agriculture, none in which the actual ignorance is greater.

Again he says: "An agricultural practice, founded upon a simple acquaintance with *facts*, without any idea of their nature, or one based on the exhaustion of the land, may be conducted by a person of very limited intelligence, nay the most ignorant man may be fitted for the purpose by the mere statement of facts to him. But a *rational* pursuit of agriculture, which, with the greatest economy of capital and labor, can obtain from a *field continuously without exhaustion*, the highest crop it is capable of yielding, requires a large compass of knowledge, observation and experience, more, perhaps, than in any other business. For the rational agriculturist must not merely know all the facts with which the illiterate peasant is acquainted, but he must also be able to appreciate them at their proper value; he must *know the reason of all his proceedings* and what effect they may have upon his land. He must be able to interpret what his field tells him in the phenomena which he observes in practice—in a word, he must be a thorough man, and not a half and half creature who knows no more about his actions than a tom-cat, with just skill enough to catch gold fish in a basin of water."—(page 313-14.)

The most successful farmers, as a general thing, will undoubtedly be those who "know the reason of all their proceedings and what effect the same will have upon their lands," provided they do their farm work at the right time, and in the right way. For the farmer who has this knowledge will excel, and have an advantage over ignorant farmers, only and just so far as he reduces that knowledge to careful practice. This truth is so plain that I need not offer any arguments to prove it. But a man may be ignorant of all this knowledge, and very ignorant in all other matters indeed, and yet be a good farmer, so far as the raising of superior farm crops is concerned, just because he has learned from others the art of doing farm work in the right way, and because he does his work rightly and at the right time. We have many such farmers scattered here and there throughout our country—men who cannot clearly see or tell the reason or reasons of their success in farming, but they know that they do succeed and so persevere in their course without troubling their minds about the real cause or causes of their success. It is enough for them to know that they do succeed and that their lands are getting better instead of poorer. And these very farmers, ignorant as they are of chemistry, and of the names and nature of the fertilizing elements of soils and manures, and the philosophy of the weather, &c., would upon the same land, as a general thing, raise larger and better farm crops than Liebig himself with all his profound knowledge of these things could, just because there is an *art* in doing farm work that nothing but a long continued practice will make any man master of—an art that they fully understand, and Liebig and other learned chemists, mere unpractised agricultural writers do not understand. And so we see from these observations that *knowledge* alone will not make a successful farmer, and that mere *work alone* will not do it, since no ignorant man could be such a farmer without the knowledge imparted to him by men who understand the business. And the great majority of our farms and plantations all over the country have now become *so poor*, through injudicious farming, that our farmers everywhere now find it greatly to their own interest to learn all they can from books and agricultural journals about the cheapest and best ways, and means of improving our poor and worn out soils.

## LANDS IN SOUTHERN MARYLAND.

*To the Editors of the Maryland Farmer:*

In your February number, headed "Shenandoah Valley, Virginia," inquiries are propounded, and truthful answers asked, touching lands for sale either in Maryland or Virginia, mild climates, &c. Being in the purview of the inquiry, this information is intended to call attention to lands in Southern Maryland, and particularly the tide water portion down the Potomac river to the Chesapeake bay. To inquiry 1st:

The country from Washington to Point Lookout, lying between the Patuxent and Potomac rivers, is about seventy-five miles long and an average width of about twenty-five miles, constituting a part of Prince George's, Charles, and the whole of St. Mary's county.

2d. The portion of Prince George's and Charles as it approaches the Patuxent, and much of the Potomac lands are very productive and easily improved, when they are under the tender care of improving farmers. The width of territory is greater in this upper portion, and while it has its full share of fine meadow and upland, it has its share of poor neglected lands, mostly clay, and much light soils, improved portions of which show great susceptibility of improvement.—The same character attaches from Washington to St. Mary's county, except that in the interior, there are belts of land equal to the contiguous river lands, when the soil is deep, but though occasionally exhibiting small and medium cobble stones, it is free from stones, abundantly watered. The same remarks may apply to St. Mary's county, which, being a Peninsula not averaging more then forty-five miles long and ten miles wide, the forest or centre is mostly light land and clay subsoil. Lands on the river are rich, in good hands, but reduced under improvidence. This land has a deal of the best soil for agriculture and abounds in every variety of timber, though generally poor, light, and unimproved. It is blessed with soft spring water and a few chalybeate springs.

3d. Answered in 2d, except that there are but little building stones beyond foundations for chimneys and underpinings.

4th. The prices vary from $10 to $25 per acre, except very productive farms, and they vary according to domestic and farm buildings. When commodious, for farm purposes, to a maximum of $75 per acre, and such as are on the river and creeks abounding with timber, oysters, terrapins, &c., and within a few hours or a day's passage of Baltimore, Alexandria and Washington by steamer or sail vessels, many of which conveniences belong also to unimproved lands. As to wild lands, there is not much that would come under that head. A body of that kind in wood and timber, nearly 1,500 acres, below Leonardtown, the county seat of St. Mary's, was sold last year for $20 per acre—not more than two and a half miles from the Potomac.

5th. These lands, when of a stiff or compact soil, are naturally grass lands. Very little attention is given to hay, as a crop, but when it is, good crops of hay, etc., give good cattle, and would equal the best if our mild climate had not entailed on us carelessness of stock. The crops are corn, tobacco, wheat, fruit and potatoes, and prices are dependent on the above mentioned cities, freight to either 8 cents per bushel, and $1 50 per hogshead of tobacco.

6th. Answered above.

7th. Average wages for our unreliable free negro labor, 50 to 75 cents per day—$10 to 12 per month, $100 to $130 per year, and board. Our Maryland Bureau is beginning to better the labor by foreign immigration.

8th. Mechanics of all kinds work for less money than in cities; board is saved to them.

9th. The cheapness of living, and readiness for sale of all that can be spared, makes it a good place for men of small or large means if sustained by sobriety and industry. We are mostly of the old stock that settled Maryland.

10th. This region has no towns or villages beyond the county seats of Charles and St. Mary's counties. No canals wanted. Baltimore and Potomac Railroad, now under construction, call at Washington, but main stem will continue through Charles county to opposite Aquia Creek, Virginia. The Southern Railroad through this region, from Point Lookout to Washington, or to intersect the Baltimore and Potomac Railroad, has been surveyed, estimates and reports in preparation, and commissioners now taking stock.

MARYLANDER.

## STORY OF A LIFE.

A little crib beside the bed,
A little face above the spread,
A little frock behind the door,
A little shoe upon the floor.

A little lad with dark brown hair,
A little blue eyed face and fair;
A little lane that leads to school,
A little pencil, slate and rule.

A little blithesome, winsome maid,
A little hand within his laid;
A little cottage, acres four,
A little old time household store.

A little family gathered round;
A little turf-heaped, tear-dewed mound;
A little added to his soil;
A little rest from harvest toil.

A little silver in his hair;
A little stool and easy chair;
A little night of faith lit gloom;
A little cortege to the tomb.

Calcined plaster is as good a fertilizer as the uncalcined, but it is usually wasted after its use in the arts.

FOR THE MARYLAND FARMER.

## OUR FORESTS.

The wasteful manner in which our forests are being swept away calls for more public attention than it has yet received. Our native woods seems to be regarded only as encumbrances on the soil, to be got rid of as speedily as possible; whereas they are among the great sources of the wealth of the State, and should be carefully guarded from total destruction. Already many kinds of valuable trees have become quite scarce, and no measures have been taken to prevent their entire disappearance.—The evil of denuding a country of its forests is felt in various ways; not only in the loss of valuable timber, but in the resulting barrenness of the land. France has become so stripped of its woods as to change the climate, making it less rainy, and rendering a great amount of land more barren in consequence. So apparent has this evil become that it has been suggested in the Imperial Senate that the French army should be employed in the business of planting trees all over the country in those places not reached by agriculture. A much more sensible use to put it to than fighting the Prussians or any other nation.

In our own State the great pines are becoming scarce, and the lumbermen must go farther and farther into the wilderness in search of them. In the meantime new uses are being discovered for the wood of many of our native trees, which will be sure to cause them to disappear rapidly. The manufacture of hemlock bark extract, for tanning purposes, recently introduced, and particularly in the Aroostook region, in Maine, where it is carried on extensively at present, will cause great havoc in our hemlock forests. There is one little shoe-peg manufactory, up in Wilton, Mass., that uses up one and a half cords of birch wood every day, and already the wood has become so scarce that it costs $10 a cord.

Within a few years it has been discovered that several of our native woods make as beautiful a finish for the interior of dwelling houses and public buildings as the costly satin and rose woods of foreign lands. The black ash used in finishing our city Government buildings, takes a high polish and has a beautiful grain. Yet how many thousands of cords of that wood have been wasted in times past when it was considered of no value. An architect told me some time ago that when, ten years ago, he proposed to finish a gentleman's house with black ash, the proprietor exclaimed that that wood wasn't fit to burn? But it proved to be fit to make doors for his house which cost but $4.50, and which a gentleman declared he had rather have than the doors of foreign wood, in his own house, which cost $120. Ten years ago black ash could be bought for $7.00 a thousand; now it costs here about $70.-00. If no means are taken for its preservation it will disappear, as bird's eye maple, once so much admired, has done. There are others of our native woods, as the birch and some species of the elm, which make a handsome finish, and will undoubtedly be brought into extensive use. These facts go to show the great value of our forests, and the necessity of some measures to prevent their being wholly swept away before the advancing tide of lumbermen, and settlers in the distant parts of our States.

J. S. G.

*New Oxford, Adams Co., Pa.*

## PLASTER ON THE CEREALS.

West River, February 16th, 1869.

*To the Editors of the Maryland Farmer:*

I am aware that the influence of plaster on the cereals has long been a disputed question. I do not mean its specific action on vegetation, for waiving that, we know that it is most beneficial as a fertilizer, without stopping to enquire as to its *modus operandi*. Applied to the grasses it is most important. I have been a practical and experimental farmer for thirty years, but have never yet been able to satisfy myself that it had any effect on wheat or oats when sown in the spring, although I have long pursued that course, for what I supposed would be its salutary effect on young clover, and perhaps, on the soil for subsequent crops. It is believed, I know, to be of much use on corn and tobacco, perhaps not as a direct fertilizer, or as affording food for the plants, but for its action in other respects. Will you be kind enough to state in your next number what seems to be the settled opinion as to its influence on the wheat crop when applied to it in the spring, independently of what we know to be its beneficial effects on the recently seeded clover?—This is a question that I am not able to answer for myself. Does the immediate vicinity of *salt water* neutralize, as many persons say, its action on vegetation? Does it produce any good effects when applied to corn and tobacco around the plants, and what is its real action on them?

Yours, truly,

Geo. W. Hughes.

Mulching.—If a mulching is employed at the time of planting trees they will never need watering. Uniform temperature and a constant supply of moisture are the prime elements of success in fruit culture. Mulching enables us to accomplish this. It prevents to a great degree, the crackling of fruit, and causes those varieties which aae generally spotted and defaced, to become clean and covered with a rich bloom.—*S. E. Todd.*

## COLFAX STRAWBERRY.

Purdy & Johnston, of Palymra, N. Y., speaking of this Strawberry, say:

"We have known this variety for twelve years and can most emphatically pronounce it the *most prolific* Strawberry we have ever seen *not excepting* that well known sort *Wilson's Albany.*

Some twelve years since the Hon. SCHUYLER COLFAX introduced into South Bend, Ind., a number of seedling Strawberries. Among them was one variety which we have cultivated a number of years with great success. We had not brought it before the public, thinking it might be some variety that had been disseminated. After, however acquainting ourselves with every variety of strawberry known, both on our own and other grounds, and also visiting fruit shows, we have become convinced that it is unknown to the horticultural world, and is of too high value to remain thus. Every person who has seen it growing on our grounds say they never saw it before, and in *every* instance they have pronounced it *the most prolific sort they ever saw.* We have tried to trace its orgin, but unsuccessfully. We therefore, on account of his first introducing it, name it the "COLFAX." It is no new, untried "mushroom" sort with us, and we can therefore speak of it understandingly.

We do not recommend it as a market berry but more especially for the farmer, the mechanic and the small gardener. To them, we *know* it will give the highest satisfaction. The vines are extremely hardy, never having been winter-killed, when nearly all other sorts have been more or less injured.

It is a rank grower, the Wilson plant being a pigmy by its side. The Green Prolific and Agriculturist, do not average over half its size. The size and magnitude of the vine is a fair criterion of its productiveness in comparision to other sorts. Foliage dark purplish green; fruit medium size, perfectly round, and dark crimson when ripe; flavor sub-acid, with a peculiar spicy taste; season medium to very late, being the last sort picked on our grounds. We candidly believe it will prove one of the most reliable varieties grown, especially for the farmer, who cannot or will not give the strawberry that attention that most sorts require for a large crop. It will stand "slip shod" culture, and yield as large crops as most other sorts with good cultivation.

We know of a plantation that has stood on the same ground for eleven or twelve years—all the care it having received is a strip of one foot in width being spaded under every fall or spring, leaving strips of about the same width alternately—the crop from this bed *every* year being a wonderful sight to see.

We venture nothing in saying that it is the *most productive* strawberry within our knowledge."

## LIME AS A FERTILIZER.

Lime, as almost any novice in the art of farming knows, is limestone burned. The question which naturally follows is, what is limestone? The common answer to this would be, carbonate of lime.—But is this a correct answer? I think it is not. The analysis of seven kinds of limestone, which I have before me, varies very much; for instance, the first contains of carbonic acid 43.7 of pure lime, 53.8 of clay, oxide of iron, phosphoric acid, and insoluble matter, each a slight quantity scarcely perceptible. Another specimen contains of carbonic acid 40.5, of lime 13.6, of clay, oxide of iron and phosphoric acid 1.6, of insoluble matter, 4.58 parts in every 100 of limestone. The first also contains 2.5 of carbonate of magnesia and the latter 44.72 of the same compound. Now the first kind of stone would, if, rightly burned, yield at least 11 cwt. of good lime for every ton of stone burned. The latter would give only 4.8 cwt. of lime for every ton of stone burned, there would also be nearly as much of a compound which once was magnesia. I say once was, for the carbonic acid requires much less heat to free itself from the magnesia than it does from the lime, and the natural consequence is that before the carbonic lime has parted with all its carbonic acid and becomes lime, the carbonate of magnesia has not only parted with its carbonic acid, but has been also heated as to destroy its properties as magnesia. In the latter case the lime, if it can be done at all, is very difficult to slack. Our farmers (from, to me, some unknown cause,) have a particular objection to lime which contains the least trace of magnesia. In a few years after a field has been limed with this latter kind of lime, if it be ploughed, large lumps of white substance resembling lime, are turned up; the lumps are a hydrate of magnesia, composed of magnesia 69.7 and water 30.8 in every 100. We also sometimes find smaller lumps, as large sometimes as a hulled walnut, which on being broken open contain lime in a caustic state; these lumps (as may readily be proved by applying of a few drops of water to the inside,) are composed lime inclosed in a hard shell of hydrate of lime which effectually prevents the action of the air or moisture on the lime contained in the lump. Pure hydrate of magnesia constitutes the basis of most if not all of our hydraulic cements; it will become solid *under water* in nine or ten days. Mortar formed from the lime of the last mentioned analysis would soon become hard under water. It is of an English variety, and I do not know whether any has been found in this country which contains so great a proportion of magnesia. Some of the older farmers say that they can taste magnesia in the lime of some of our Chester county quarries. It is more easily detected by a yellow cast which it gives the stone.

If carefully slaked, good lime will increase its bulk from 2 to 3½ times by the operation.

Heat is evolved in proportion to the quality of the lime and in adverse proportion to the quantity used; some of the English limes are so pure that it is said (Johnson) that the heat evolved by slaking with a small quantity of water will ignite gunpowder, which is sprinkled on the lumps. If water is supplied in too large quantities the hydrate is formed, which will neither form mortar nor benefit the soil. One ton of good, well burned lime will produce 25 cwt. of slacked lime, which will contain of lime 76 and water 24 in every 100.

Much depends on the groper burning of the limestone, or rather knowing when to stop the burning process, for good lime may be reconverted into a species of very hard limestone by continuing the burning too long. This at least is the case with some of the limestone in the Chester Valley.

It would seem that time is necessary to vegetation, for all soils contain some portion of it. Even your western prairies contain a portion, though small, of lime. In fact, I do not think that anything would grow on a soil entirely destitute of lime, for any living plant or animal contains within itself some portion of lime, in some form or other, most of them contain it in combination with phosphoric acid in the form of phosphate of lime; this is necessarily returned to the soil by the death and decomposition of the plant or animal.

The portion may be small when compared with the whole mass, but suppose a soil to contain only .002 per cent. of lime, and that the soil is 6 inches deep and each cubic foot to weigh 80 lbs.; an acre of such soil would contain 3500 lbs. of lime, or nearly 1½ tons.

The quantity of lime that should be applied varies very much with the land.

Thus, soils to which lime is applied for the first time should receive larger quantities than those which had been limed regularly. In the above mentioned example to add .002 per cent. of lime to a soil destitute of it, would require 3500 lbs., or about 40 bushels of *slaked* lime per acre. To add one per cent. to a soil one foot deep will require 16 tons of caustic or 600 bushels of slaked lime per acre.

To clay land lime should be applied in larger quantities, for two reasons: 1st, the lime has the effect of loosening the stiff clay as well as its usual fertilizing powers. 2d. The particles of lime, however fine, are very liable to become covered with a covering of stiff clay, which prevents the action of air and moistures upon it, and consequently it does not perform its proper office. On wet, swampy lands, lime may be put on in large quantities, because the lime meets within the soil various earthy matters with which it forms a species of mortar which

is insoluble. In England it is common to spread caustic or quick-lime on such land at the rate of 300 to 500 bushels (of quick-lime) per acre. They find that in large quantities it "sweetens" wet land.

It is customary to apply lime in this country at the rate of 90 or 100 bushels of slaked lime per acre. Is this the most economical plan? To illustrate what I mean, I will state it in the manner of an experiment, thus: Suppose we take two acres of land, similar in situation, soil, &c., &c., and give them each 100 bushels of lime per acre. Let one of these acres be cropped, mown or pastured for ten years before liming again. Suppose each acre to produce 25 bushels wheat, or its equivalent in corn, oats, hay, or pasture; it is evident that for the first year the crops would be equal. Now, we must admit that if the land needs lime at the end of ten years, that it uses 1-10 or ten bushels in ten years. It is evident that the crop will be every year growing less, say until it decreases to 20 bushels.

Now let one of these acres have ten bushels of lime applied every year, the crops on this will then be equal, and the account will stand thus:

10 crops of 20 bushels,—250 bushels, on land limed every year.
10 crops of 20 bushels,—200 " " " not limed every year.
Difference, 50 bushels.

Here is a gain of 50 bushels of wheat (or its equivalent in some other crop or crops) worth at least $1 per bushel—$50—200 bushels lime at .25 per bushel. Or, in plain English, will it not "pay" us to apply a small portion of lime every year?—Certainly it will if the above reasoning is good; *if it is not, let us have it corrected as soon as possible.*—John P. Rodgers, *in Germantown Telegraph.*

## WEEVILS.

Perhaps there is no word in our language that is so vaguely applied in common parlance as weevil. It means in the popular mind any thing that works evil to our wheat crop. It is of much importance that the people gain a clear idea of the insect which this word truly designates, as will appear in the sequel.

True weevils belong to the order *Coleoptera* or beetle. All beetles have, when fully matured, strong jaws, four wings, the upper pair being of a hard, protecting character, and are developed from soft grubs. As weevils their most obvious character is a long snout or rostrum.

The only weevils which as yet are troublesome to us are the pea weevil (*Bruchus pisi*) and the plum curculio (*Conotrachelus nenuphar, Herbst.* Any one, by examining these common weevils will readily observe the characters above noted.

The insect which has caused the broad application above alluded to, is the grain weevil (*Sitophilus granarius, Linn.*) This is a slim dark-red weevil of less than one quarter of an inch in length. As soon as the egg which is deposited in the dried grain, is hatched—the larvæ or grub eats into the kernel, devouring all but a thin shell. As a single pair may produce several thousand in a year, they are, when thoroughly introduced, very pernicious. In many of the oriental countries they are enormously destructive. As the great Entomologist Westwood observes: "The mischief they do is incalculable. As yet they are not noticeable with us, and it is greatly to be hoped they never will be, for it will be a woeful day indeed, when they are fully introduced into our grain elevators, and farm-granaries."

Some grains of wheat received at the Michigan Agricultural College, a few years since from the Seed Department in Washington were well stocked with these dreaded insects. Thus how dangerous is the ignorance above mentioned. Care, coupled with necessary information, may easily prevent that which it will be very hard indeed to cure. Every grain dealer, every farmer, should know a grain weevil, its habits and character, so that its introduction among us may be obviated, as this first appearance will be noted, and by kiln drying or other efficient means, harm will be kept at bay.

Now as to the ambiguity of the use of the term weevil. People observing the larvæ of a dipterous or two winged insect, the Hessian Fly (*Cecidomyia destructor, Say*) working at the wheat-stem near the lower joint, or of the midge (*Tritici, Kirby*) also dipterous, sucking the vitality from the green berry while yet in the field, at once raise the cry of weevil. As well tell a man that the fish were treading down his growing corn, for the true weevil only works at the grain after it is threshed and stored.

That these pests of European granaries should be effectually kept back is of prime importance. So we urge every farmer and grain-dealer to learn at once to distinguish between the larvæ of the Hessian Fly, working in the stem near the root in late Autumn and early Spring, and developing into a small black, two winged fly; the midge—destroying the unripe berry while yet in the field—also a small two winged fly, when matured; and the weevil—feasting within the stored grain—and becoming, in the adult state, a four winged insect or beetle with a long snout or rostrum.

We think the importance of this subject is sufficient excuse for the above tautology. For until farmers, who have the best opportunity to observe, and may thus become the greatest aid to Entomological research, gain clear ideas as to the correct names and habits of different insects, entomology can never become that efficient ally of the husbandman, which the wellfare and progress of this great nation demands.—A. J. Cook, *in Western Rural.*

Michigan Agricultural College.

## WHEAT ITEMS.

From *Deitz's Experimental Farm Journal*, published by Geo. A. Detiz, Chambersburg, Pa., we glean the following items in relation to wheat:

A CHANGE of Wheat is very desirable, as all soils differ in their organic matter, as this table shows:

| | A fertile Vegetable Soil. | A good Sandy Soil. | A fertile Clay Soil. | A fertile Loamy Soil. | A Calcarious or lime Soil. | A Marley Soil. |
|---|---|---|---|---|---|---|
| Organic Matter, Humas, &c. | 1008 | 49 | 338 | 1124 | 635 | 1050 |
| Oxide of Iron, | 630 | 319 | 882 | 487 | 931 | 1192 |
| Alumina, or Pure Clay, | 930 | 265 | 667 | 1404 | | |
| Lime, | 101 | 24 | 144 | 83 | 5456 | 1992 |
| Magnesia. | 20 | 70 | 92 | 102 | trace | 25 |
| Potash & Soda, | 01 / 02 | 12 | 148 | 208 / 143 | 103 | 71 |
| Phosphu'c Acid | 13 | 07 | 157 | 24 | trace | 38 |
| Sulphuric Acid, | 17 | trace | trace | 09 | trace | 04 |
| Chlorine. | — | trace | — | 25 | . | 76 |
| Insoluble Silicates Clay and Sand. | 7280 | 9252 | 7283 | 6319 | 2877 | 5552 |
| Carbonic Acid. | — | — | 187 | — | — | — |
| | 10000 | 10000 | 10000 | 10000 | 10000 | 10000 |

WEEVIL AND OTHER INSECTS—SEED GRAIN.—M. Gand, Agricultural Engineer of Belgium, gives his method for destroying the weevil and other insects on grain. His plan is to deposit the grain for seed in barrels fumigated with burning sulphur. Coarse threads or twine are drawn through melted brimstone, suspended in the barrels intended for the grain and burned there. The seed is then thrown into the cask amid the fume and covered up for a quarter of an hour, when the operation is complete and the seed ready for sowing.

THE best spring wheat for general cultivation on all kinds of wheat soil are the smooth Amber, White Chaff, Canada Club, and Scotch Fife. They adapt themselves readily to a variety of soils, and have the advantage of being well acclimated. They are hardy, ripen early and are productive. The wheat also makes a superior family flour. Some farmers sow Rio Grande and Scotch Fife together, the stiff straw of the latter helping to hold up the long, luxuriant stalk of the former. Thus mixed, the two varieties often yield superior crops of wheat, making excellent flour.

WEEVIL or other insects in Seed Wheat can be destroyed by mixing slacked lime with the wheat, and leaving it lie a few days. It will kill all insects. Wheat can be kept in a bin for years. By dusting lime in the wheat, weevils and other insects will not touch it. Before sowing, wheat can be limed as follows: For ten bushels of wheat mix up a common pail full of wash, lime mixed with urine, pour over the wheat and stir it thoroughly, and in two hours it will be dry for sowing.

South of the Potomac I would recommend farmers to sow oats and spring wheat as early as the ground can be plowed and prepared for sowing.—There is often a spell of pleasant weather in the latter part of January and in February, when clay soils become sufficiently dry for plowing. Every hour of such weather should be employed in plowing, for the earlier oats and wheat are put in the better will the crop be. Sandy soil can be plowed still earlier than clay.

THE EGYPTIAN, or seven-headed white wheat is a half hardy winter wheat, somewhat similar to the California Spring wheat. It should be sown where spring wheats are sown, or where the climate is not very severe. It is bearded, and has seven heads or branches, is very prolific, a single head containing as many as a hundred and fifty grains, and does well to mix with other wheat in making flour.

LANCASTER WHEAT has greatly deteriorated, and only succeeds when the seed has been carefully selected, and changed from other soil. Mixing wheat is of no benefit, unless you have a variety that is weak in the straw, and you add a stiffer variety to support it. Otherwise it is best to sow wheat separately.

THE most powerful liquid manure for Wheat, is the lye run off white oak or hickory ashes, with a little quick lime added. This lye gave the greatest results of all the different dry and liquid manures used. It has a very powerful effect to make stiff s traw, and the grain full and plump.

THE BEST WAY TO BRINE WHEAT FOR THE DRILL.—Use salt sufficient to make a brine to carry an egg, or what is better run off lye from good hickory or oak ashes with a little lime mixed in the ashes.—The lye ought to be strong enough to carry an egg.

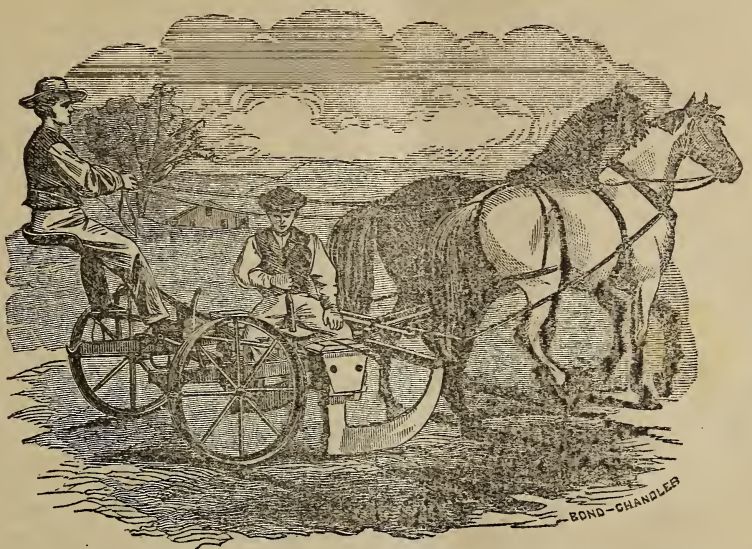
GEORGIA DRIED PEACHES.—The Rome *Courier* says, 152,556 pounds of dried peaches have been shipped from that city, which at ten cents per pound, were worth $15,555,60, and the crop is not yet half in. The Marietta Journal says an equal amount has been shipped from that town.

The editor of the *Attica Atlas* says: "The mad theory of stripping off leaves to hurry the ripening of grapes, has had its day. The confessed result is inferior fruit and later ripening." He is of the opinion, too, that the pinching back process has been carried to excess, resulting in blight, mildew, and weak plants.

A correspondent at Paulding, Miss., writes:

"I do not at present think that I could do without the *Farmer*. I hope that it will soon be prosperous enough to be published as a weekly."

## BROWN'S ILLINOIS CORN PLANTER.




The above cut represents Brown's Illinois Corn Planter. This implement was introduced into the large corn growing regions of the west, about sixteen years ago, and with such marked success, that it long since entirely superceeded the old fashioned mode of planting. Two hands and one team, with this Planter, can lay off, drop and cover, from fourteen to twenty acres per day in check rows, and as it drops the seed more accurately, and plants at a more uniform depth, all who use them unite in saying, that in addition to the great saving in the expense of doing the work, that it is done better than can be done by hand. The committee on Implements at the late Iowa State Agricultural Fair, speak in the highest terms of this Planter, and say that 416 of them were sold in Iowa alone for the season of 1867. Price $70. Manufactured by George W. Brown, of Galesburg, Illinois.

## THE COST OF FENCING.

Every farmer knows what it costs to fence in his land and divide it into fields, and he is disposed to be as economical in this as in other expenses about his farm. He will of course not make post-and-rail fence if he can make some other kind which will answer the purpose equally as well at less cost.—Our farmers have tried every kind of fence from stone down; but when the latter is built, unless the material comes from the premises which are thus cleared, and killing two birds with one stone, it is perhaps the most expensive. It may last longer than any wooden fence if great care is taken in building, but not otherwise. The Irishman's stone fence may perhaps be taken as a sample, which was four feet wide and six feet high, and so built to cheat the wind, which, if it blew it over it would be two feet higher than it was before! Apparently our farms are divided too much and thus increasing the expense of fencing, but here again it is to be supposed that the one who follows his business understands it the best, and is not likely to adopt a plan of fencing upon his farm that he does not think most conducive to his interests. Surely he would not cut his farms up into eight or ten fields if four or five would answer just as well.

In the State of Georgia the present system of rail-fencing is condemned. There is said to be at least 500,000 miles of fencing in the State, which cost not less than $9000 per mile, or four billions five hundred thousand millions of dollars. To get rid of this so-called enormous expense, *herding stock* is recommended by a Georgia journal complaining of the cost. The editor might as well go a little farther and adopt the old style of doing without houses and barns and camping out, as they did in bible times, and still do in Central Africa. This, with the abandonment of all wheeled-vehicles, would save nearly as much as the fences. If we are to go back to the time of predatory life, for the purpose of saving expense, let us do so effectually. Our Georgia cotemporary may rest assured that civilization is quite an expensive thing.—*Ed. Ger. Tel.*

THE

# MARYLAND FARMER

AT $1.50 PER ANNUM,

PUBLISHED ON THE 1st OF EACH MONTH,

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Excelsior Potatoes.—We have received from Mr. James J. H. Gregory, of Marblehead, Mass., a small box of this superior potato. It is white skinned, nearly round, skin thin and smooth, eyes prominent, and when cooked is remarkably white and mealy. The small lot sent us was tested by the household and pronounced "excelsior."

We have received from Jas. B. Olcott, Esq., of Buckland, Conn., a package of the "Farmers Club Sweet Corn," which he claims to be superior to any other variety for table use. He will furnish sufficient for fifty hills on application as above, for 50 cents.

Durham Bull Athos.—Rev. Geo. Morrison, the owner of this splendid pedigree animal, offers him for sale at $250. Address James Henderson, Sweet Air, Baltimore county, Md.

We would call the attention of our readers to Mr. Wilkinson's advertisement of very choice *Peach trees*. The varieties are all good, and such as have stood the test of experience of large peach growers for years, and with the use of them according to the list, the season of ripening may be protracted through a period of two months or more, a feature of great importance in peach culture.

## THE CHARLESTON PHOSPHATES.

Every newspaper now published in Charleston, announces from day to day, from nine to a dozen vessels loading, on the Ashley river, with Phosphates dug from its shores. These vessels are all chartered for the Baltimore market, or some of the markets further eastward, where the phosphates of Ashley river are to be manufactured into commercial fertilizers adapted to the immediate use of farmers, either as pure phosphate of lime, or mixed with ammonia—in which latter case it is generally known as Phosphatic Guano. The discovery and utilization of these extraordinary deposits of fossilized bone, are among the most remarkable events, agriculturally speaking, of the age in which we live, and the discovery itself is second only to that of Peruvian guano. The guano of the Chincha Islands, now brought into general use in this country and in Europe, is unquestionably a commercial fertilizer of great value. But everybody knows that the effect of Peruvian guano, when applied alone to the soil, is but temporary, owing to the quick action and volatility of the ammonia, which is its principal constituent. It was found, however, that when mixed with bone, reduced to a fine powder by the use of dilute sulphuric acid, its effect upon the crops was more lasting, and the product in grain much greater, inasmuch as the office of ammonia is to stimulate the growth of the plant, whilst bone earth—phosphate of lime—enters largely into the composition of the grain. Moreover, so heavily do successive crops of tobacco and the cereals draw upon the phosphates of the soil that they are sooner exhausted of them than of any other of its constituents, and the grain bearing capacity of the soil is weakened to the extent of their loss. In many of the soils that have been long under the cultivation, the application of phosphate alone will restore them to a high state of fertility, and with the addition of a small quantity of barn-yard manure, will give to the land all that it needs to produce vigorous and profitable crops.

Bearing this in mind, it will be perceived how essential the phosphates are as a means of fertilizing the soil, and the extraordinary benefit which agriculturists will derive from the discovery of the Charleston beds, covering an area of many square miles of surface continuously, ranging for the thickness of the bed from four to eighteen inches, which sometimes, though more rarely, increases to two or three feet. Analyses of these phosphates show that they contain from fifty-seven to sixty-seven per cent. of pure bone phosphate of lime; that they are not mineral phosphates, as was at one time supposed, but are actually the bones and *excretæ* of marine animals, and contain even now, after the lapse of ages, the peculiar cellular structure of bones.

A pamphlet which has recently been published by Professor Pratt, now of Charleston, but formerly Professor of Chemistry and Geology in Oglethorpe University, Georgia, is now before us, and is the ablest and most exhaustive treatise on the discovery and development of these phosphates that we have yet seen. He describes the stratum of phosphates as underlying the soil at the depth of about two feet, and as varying in thickness in the manner we have already stated, thinning out in some places to a few scattering nodules on the surface. The stratum when freed from the superincumbent soil, is found to consist "of indurated, irregularly rounded nodules, buried in an adhesive and tenacious blue clay and sand"—sometimes, however, the stratum is compacted together, "and consists of continuous beds, or large lumps or conglomerates of soft chalkey consistency, as if it were once a soft pasty mass of phosphatic mud that had since become semi-consolidated." * * * * "Associated with these are a most wonderful assortment of animal remains, among which bones of marine animals are so abundant as to have induced Professor Agassiz twenty years ago, to call it the Fish-bed of the Charleston Basin." * * * "These bones, especially those of now extinct animals, retain, in a great measure, their cellular structure, but seem in some cases to have materially increased in compactness and weight by a kind of internal segregation, or condensation of phosphate of lime, though no trace of mineral phosphate has ever been observed in them."

But the most curious fact is that which relates to what are called as the nodules, and by some described as coprolites. These nodules, or coprolites, or comglomerates, as they have been variously styled, constitute, in some places, from one-third to one-half of the entire weight of the stratum. Some naturalists have heretofore regarded them as petrified secretions; but Professor Pratt contends that they are true bone, water worn and rounded, by the action and reaction of the water through a long period of time, and this theory finds confirmation in the fact that they yield, by analysis, from 57 to 67 per cent. of pure bone phosphate of lime, and under the microscope exhibit unmistakable characteristics of bone.

The following analyses of the Charleston Phosphates, furnish the best evidence of their agricultural value:

Nos. 2, 3, 4 and 5, are from the South side of Ashley river.

Nos. 6, 7, 8 and 9 from the North side of the same river.

| | Numbers. | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Phosphate of lime | 55.52 | 63.30 | 68.03 | 66 36 | 61.93 | 64.07 | 69.00 | 59.07 |
| Phosphate of iron and alumina... | 1.50 | 1.32 | 5.02 | 3.01 | 1.04 | 84 | | 65 |
| Carb. lime and magnesia..... | 10.33 | 8.20 | 8.03 | | 11.21 | 11.00 | | 5.68 |
| Organic matter... | 6.50 | | 7.50 | | | | | |
| Sand..... | 9.00 | 9.01 | 9.91 | 11.70 | | | | |

The minor constituents not being of much agricultural value are not estimated.

A French agricultural writer of eminence in an article published in the Paris *Journal of Agriculture*, says that phosphate nodules similar to those of the Charleston deposits, when converted into superphosphates, have been applied to the soils of France with great success. But, he also claims, that their treatment with acid, is not necessary, and that "a mixture of phosphates simply reduced to powder, by crushing or grinding, and composted with barnyard manure, yields the most admirable results." The domestic manipulation of the pulverized phosphates of Charleston, is already being practised to some extent by the farmers of Northern Maryland, and of the border counties of Pennsylvania. But instead of mixing the phosphates with manure, they buy the crude ammonia of our chemists, and thus do for themselves what is generally done by the manufacturers of fertilizers. By taking the matter into their own hands they accomplish this result. Assuming the phosphates to contain as much pure bone phosphate of lime as is claimed for them, and of this we think there is no doubt, they get an article which they are quite certain has not been deteriorated by the admixture of foreign and worthless ingredients.

Land for Grapes.—At a late meeting of the Pennsylvania Fruit Growers' Society, Mr. Meehan, the noted horticulturist of Germantown, launched the following dogma concerning grape land:

"To have good success, a soil could scarcely be too warm, too dry, too shallow, or too rich." The enunciation of this radical platform occasioned some surprise; but not more so when it was found the experience of nearly all the speakers confirmed it. Rev. Mr. Colder said at Harrisburg his Concords on low lands did poorly; on dry land they did well. Mr. Kessler found just the same experience at Reading. Mr. L. Reist reported the same of Delaware grapes in his vicinity. The best Clinton Mr. Kessler ever saw were growing on an old stone heap. Dr. Gross did not approve of shallow soil, but found it best not to dig deep, but to fill up on the surface. Mr. Hildrup, of Harrisburg, had had great success by planting on a very dry soil well enriched with stable manure; he had made last year fifty gallons of wine from four hundred vines. Others gave similar experience.

## CHEROKEE GEORGIA.

No. 2.

*To the Editors of the Maryland Farmer:*

Among the various agricultural products of Cherokee Georgia are—1st, All the grasses; 2d, All the Cereals; 3d, Cotton:

### The Grasses.

After the war, those were fortunate, who could get corn enough to feed their families. Corn for stock was out of the question. Many farmers went into the woods, where the cavalry had their camps, and, from seed scattered by the Cavalry, cut hay enough, with the *crab* or crop grass, to feed their stock and make a crop.

Clover, timothy, herdsgrass or red top, blue and orchard grass, all grow luxuriantly. Dr. Bevins, in Whitfield county, near Dalton, has the finest meadow of timothy and herdsgrass I have ever seen in 30 years travel from the St. Lawrence to the Rio Grand. At Mr. Frank Summerour's, in Sumac Valley, Murray Co., I saw blue grass superior to any in Fayette or Bourbon County, Kentucky.

### Wheat.

As stated in my last, the product of wheat in the nine counties therein mentioned was 113,991 bushels in 1850; 583,305 bushels in 1860. Almost the whole of this increase took place in the last three or four years of the decade. Under the system of shallow plowing and slovenly cultivation by the Cherokee Indians and their immediate successors, eight to ten bushels per acre was the average product.—In 1851, Mr. Frank Summerour settled in Sumac Valley. The average of his crop per acre from 1851 to 1863, including one year when the crop froze out and was plowed under, was 16½ bushels. Now by deeper plowing and rotation of crops and by turning under a clover ley, he makes an average of 25 to 30 bushels to the acre. Year before last Mr. John Bryant, of Murray Co., made 36 bushels to the acre on a large field. I heard of one farmer in Murray who made 46 bushels of wheat to the acre on a clover ley turned under; but I have lost my memorandum and have forgotten his name.—Land as good as that, on which these crops were made, can now be bought at from $5 to 10 per acre, where the owners are in debt. When they are out of debt, they are reluctant to sell at any price.

Rye, barley, oats, buckwheat and corn grow luxuriantly, and yield well; except that the buckwheat, which is generally sown as a second crop, seems to ripen unevenly. I send you herewith a sample of corn grown on second quality upland—yield over 50 bushels to the acre, without any manure.

But the great advantage of Cherokee Georgia, is that without interfering with any of the small grain crops, the farmer can raise

### Cotton

as profitably, and with more certainty, than farther South. In the canebrake of Alabama, on the Mississippi and Red Rivers, when the boll worm, the army worm, and the many other pests of the more southern cotton planter do not intervene, the yield is larger than in Cherokee Georgia. But on an average of five years, the product in Cherokee Georgia, where these enemies of the cotton crop have never yet been known, will exceed that of the richer lands farther South. For this reason, partly, and partly for another to be stated presently, my opinion is that one result of the war will be to push the "*cotton growing belt*" farther north.

In many instances the influence of the sub-agents of the Freedmen's Bureau has been beneficially exerted to keep the negroes at work growing cotton; but in too many it has been directed to the partisan object of making political machines of them. This action of the Bureau (together with the boll worm, army worm, drought in some cases and wet weather in others) explains the loss of much northern capital invested in cotton growing in the far South.—The experience of the Southern States since the war, as in the English, French and Danish West India Islands, proves that the labor of the emancipated negro can not be relied upon to grow cotton on a large scale. In a few years the Southern States will again raise as much cotton as ever; but it will be raised farther north and by white, instead of black, labor. Instead of one large plantation sending 1000 bales to market, we will have 20 small farms sending 50 bales, or 50 farms sending 20 bales each, besides raising a surplus of the cereals. Cotton planting involves a large outlay, and if on a large plantation a few leading negroes are tempted to quit work and turn their attention to politics, or to loafing, which is pretty much the same thing, all the rest follow, and the crop is lost, because it is impossible to supply their place; while the twenty bale farmer can always get the few hands he requires, or make some shift to save his crop.

Shortly after the war, Mr. Alex. H. Stephens, passing through North Georgia on his way to New York, stopped at Dalton to change cars. Many of the towns people, hearing he was at the Depot, crowded to see him. In reply to some desponding remarks, he said that they had no reason to look gloomily to the future; that lower Georgia had not only lost heavily by the emancipation, but would suffer greatly by the change of the system of labor, which it would take long to replace. But Cherokee Georgia had few slaves to lose, and the result of the war would be a large movement of population from the low country; that as soon as the political status was settled they would have an immense immigration from the North and North West, and from

Europe; and that in less than five years from the completion of the Selma, Rome and Dalton R. R. their population, now about 2,500, would swell to 30,000.

Already Mr. Stephens' anticipations have been realized by the movement of population from lower Georgia, Alabama and Florida to northern Georgia; and it will not take long for northern and North Western farmers to find out the great advantage of being able to raise 20 to 50 bales of cotton in addition, and without prejudice, to their grain crops. The large amount of money brought into the South by this year's cotton crop will soon open their eyes, and then the movement Southward will begin and will not stop till it reaches the cotton region.

TRAVELER.

## CAUSE OF RUST ON WHEAT.

The close, long continued analytical researches of Dr. Sprengel led to the conclusion that an excess of iron salts, and especially of the phosphate of iron, greatly favors the growth of red dust on the leaves and culms of wheat and other cereals. A soil in the vicinity of Brunswick that did not lack drainage, but *lime*, was remarkable for growing wheat and barley, always attacked and generally blighted by rust. A quantity of this soil was taken into a field generally free from this often ruinous parasite, to form an artificial soil fifteen inches in depth. Wheat planted in this was badly rusted, while that grown all around it, in the same field, was free from the malady.—There was something in the soil peculiarly favorable to the fungus which stains one's clothing as red as bog iron ore itself. Low ground in which salts of iron collect in excess is generally recognized as being very subject to rust. Drainage is a partial remedy and no more.

Dr. Sprengel found on analysis a fraction over a half per cent. of the phosphate of iron in the soil under consideration, with only a trace of lime uncombined with silicic acid. As free lime will take phosphoric acid away from iron, and indirectly convert iron into the harmless peroxide, and at the same time produce the valuable fertilizer, phosphate of lime, liming was prescribed and the cure was perfect.

Here is a plain case where the analysis of a soil by a competent expert detected the source of a great and permanent evil, and transformed, as by magic, a mineral poison into plant food of inestimable value. To decry soil analyses by skillful chemists is shallow quackery—a weed that finds too much favor with American farmers.—DANIEL LEE, *in Rural New Yorker.*

Roots crops, not grain, are the thing for young orchards. They do not steal so much tree food.



## Are Coal Ashes Good for Anything?

Seeing the use of ashes strongly recommended, many have tried the refuse of the grate and coal stove with no flattering results. Then they ask the question printed in large letters above. Yes. Coal ashes have some value, but for general use much less than wood ashes. In a general description that answers the purpose of the farmer, the composition of wood ashes may be said to be potash, sandy matter and lime. In the ash of elm, hickory, and white oak, there is a good deal of lime and potash. In the ash of pine wood almost no lime and very little potash. Coal ash gives sandy matter and a little lime. All plants want some of that sandy matter, and it is liberally supplied by most soils.—The silex in the ash of stone coal has this peculiarity, it is so fine that the rain dissolves it easily and feeds it liberally to plants in the early part of the summer. Hence, coal ashes are of most benefit on crops or plants that grow very fast in May and June and come to harvest early. For cereals, and tubers that are harvested late in the season, coal ash is not worth the labor of carting and spreading.—But on *grass*, *strawberries*, *radishes* and *peas*, coal ash spread thin and well raked in is a profitable application.—*World.*

## DOUBLE ZINNIAS.

FOR THE MARYLAND FARMER.

## BEAUTIFUL FLOWERS.

BY WM. H. LYMAN, LEVERETT, MASS.

Who years ago would have thought of a Double Zinnia, simple then, yet beautiful, but now one of the handsomest annuals we have, with flowers as large as the Dahlia, and of all the leading colors, such as scarlet, yellow, purple, violet, orange, and all their tints. This plant is admirably adapted to this country; will thrive in any good rich soil, and is as easily transplanted as the most common vegetables. Seeds may be sown in the hot bed early in the spring or in the open border as soon as all danger from frost are over.

The plants frequently blossom when quite small, and continue to increase in beauty and size reigning queen over the garden until cut down by the frosts. The plants should be set about eighteen inches or two feet apart, as they branch freely and make a very large plant. Parties who purchase seeds of our seedsmen should not expect that every plant will produce double flowers, and for this reason plants should be set about nine or ten inches apart so that those which prove single may be pulled up, which will laave room for the double ones. A plant in bloom is shown in the engraving. Many other beautiful flowers always are found in a well regulated garden. We always must have a bed of Asters, a bed of Balsams, Sweet Mignonette, those beautiful Heddewigii Pinks, which always make a fine show. We should not forget to have a bed of Pansies, or as some call them Johnny Jumpers. A fine bed of these would dazzle the eyes of a king. It requires no more trouble to raise a fine bed of Pansies than a bed of beets. Pansies look better grown in masses, which can be done by sowing the seeds in a small patch, say two to three feet in diameter. The Pansy being perfectly hardy does not require any protection south of Washington. In the Northern States a covering of leaves or straw would be beneficial to the plants; they always blossom better in the early spring and late fall. They will flower much better the second year than the first. When the plants are a year old they should have their roots divided in which way the plants may be kept for a number of years. Seed may be sown in the hot bed or the open ground. Another plant which every one ought to cultivate is the Sweet Pea, always emitting a delightful fragrance; they are as easily grown as the common pea. They should be planted as soon as the ground can be worked, not waiting for warm weather; should be planted in double rows, and at least an inch deep. In the way of ornamental, we have Amaranthus, Ca nas, Ricinus or Castor Oil Plant,

Perilla (Nankinensis,) and others, all of which may be sown in the open ground with the exception of Cannas, which should be started in heat. Soak the seeds of the Canna twenty-four hours in hot water before planting. Ricinus having a tap root can not be grown in a hot bed unless in pots.

The Ricinus grows from five to ten feet in heighth and should always occupy the centre of the group. For a brilliant show of flowers nothing equals the Aster, Balsams, Dianthus, Pansies, Geraniums, Petunia, Phlox, Portulacca, Stocks, Salpiglossis, Scabiosa, Verbena and Zinnia. For fragrance we have Heliotrope, Verbena, Mignonette, Stock, Sweet Allysum, Sweet Pea, Lemon Verbenas, Scented Geraniums.

Were I to select forty varieties of plants they should be as follows: Verbenas, Geraniums, Petunias, Pansies, Zinnias, Asters, Balsams, Sweet Mignonette, Fuschias, Heliotrope, Stocks, Sweet Peas, Portulacca, (double,) Dianthus, Phlox, Scabiosa, Agevatum, Mexicana, Larkspur, Salpiglossis, Chrysanthemum, Double Daisy, Lupins, Lobelia, Mimulus, Dahlia, Gladiolus, Tuberose, Roses, Sweet William, Salvia, Lillies, Coleus, Feverfew, Canna, Ricinus, Anterrhinum or Snap Dragon, Tritonia, Abutilon, Ivys, Pampas Grass. There are many other plants that could be named, but with the above collection any one can make a splendid display.

# The Florist.

FOR THE MARYLAND FARMER.

## FLORICULTURE---March 1869.

BY W. D. BRACKENRIDGE, Nurseryman and Florist, Govanstown, Baltimore County, Md.

Much of the pleasure which should arise from the raising of plants from seeds, is lost to the operator for lack of knowledge how to sow; in many instances seeds are covered too deep, and often the earth with which they are covered, is of too stiff a nature—which from watering forms a hard crust, and through this, delicate young plants cannot easily penetrate, so they perish, and the vender of seeds—in most instances—gets the blame. The depth at which seeds ought to deposited in the ground, depends entirely upon their size, some of them being so small and delicate that they may be sown on the surface, and the covering which they will receive by being watered by a fine rose, will be all that is necessary; with such seeds, the surface of the ground should never be permitted to become perfectly dry, and in order to guard against rapid changes of this kind, it should be covered with a thin coating of moss, chopped very fine. Some seeds again, will require to be put in ¼ to 2 inches under the surface, observing to give heat and moisture, so as to exite action.

The past winter having proved very mild, plants under glass ought to be in a forward condition, and many Pelargoniums and Geraniums will now be in bloom; give them a good supply of light and air, and about once every week, a little liquid manure at the roots will improve them much. Azaleas that are in bloom, require to be liberally supplied with water, and so soon as they are done flowering, such ar require it, should be shifted into larger pots, after which, trim in all irregular branches; cuttings of half ripened wood strike roots readily in sand. Camellias that have done blooming should be top-dressed, and repotted, if necessary, before they begin to make their new growths during which time the temperature should be raised to 60° and held in a moist condition. Shift Chinese and Japan Lilies into larger pots, giving them a light airy position in the house or plant pit. Keep the *Cinerarias* and *Calceolarias* in a cool part of the house where they will receive a free circulation of air, and observe they do not get overrun with Green Fly, to kill which fumigate with tobacco stems.

The *Amaryllis* tribe may now be repotted into fresh earth, giving them a warm situation, and water sparingly until they begin to throw up their leaves. *Chrysanthemums* should now be divided, and the tops put in as cuttings. *Roses* will require to be frequently watered with liquid manure, in order to keep them in a thrifty condition; syringe occasionally and fumigate with tobacco to keep insects in subjection. Seedlings of annual plants for bedding out, that were sown last month, may be pricked out into seed pans or boxes, and removed to the cold frame, where they will be free from frosts. *Fuchsias* and *Salvias* should be kept growing by frequent shiftings; now is a good time to put in cuttings of these very desirable articles. *Acacias* that have done blooming should be pruned back, so as to form compact bushy heads. *Dahlias* that have not already been started, ought to be placed in heat without delay, as cuttings struck from the tops bloom much better than do the old roots.

Prepare a mild hot-bed of stable manure and oak leaves, cover with glass, and in a light rich earth, sow Carnations, Ten-week Stocks, Petunias, Hollyhocks, Phlox Drummondii, Zinnias, Balsams, German Asters, &c., &c. Towards the latter part of the month have ground prepared, in which to sow in the open air, Double Larkspurs, Portulaccas, Clarkias and other hardy annuals.

Remove ornamental trees and shrubs to such positions as you may desire,—avoid planting deep where the ground is wet or heavy, rather plant shallow so as to keep the roots near the surface, protecting with a thin mulch during the first summer.

Fill up gaps in the box edging, and renew any bad patches in the lawn with fresh sods, and should the grass on the main body or surface of the lawn be thin, then top-dress with a compost of ashes and earth, on which sow seeds of White Clover and Kentucky Blue Grass, brushing the whole smooth with a light harrow or aake, and finish by rolling it well. Prune hedges and Shrubbery, surface dress your walks and roads with fresh gravel, and pass over them with a heavy roller while they are in a semi-wet condition.

ASHES FOR PEAS.—The *Rural New Yorker* says, A woman sends us the following from her diary of her market garden: "In the spring of 1866, in sowing peas we ashed some in the row, leaving other rows unashed. The difference was very remarkable. Those that were ashed were more thrifty, of a darker, richer color, producing at the time of picking larger pods and a superior quality of peas. The same is true of turnips."

# Horticultural.

## ORNAMENTAL TREES.

BY THOMAS MEEHAN, GERMANTOWN.

*Of Proper Soil.*—Each kind of tree has a soil peculiarly its own. In that soil it will do better than any other tree. The subject, then, is one of some moment.

Science may some day explain this with exactness; practice and experiment have taught us chiefly what we know so far. They have taught us that an oak, beautiful on our neighbor's clayey soil, would languish in our light sandy loam; and a pine on ours—"the envied of all beholders"—would be as equally uneasy on his stiff ground. We have been enabled to learn what trees are well adapted to certain soils—in what soil any given tree will do well.

This is of more importance to the man of small means than to the man of fortune. The latter can have any tree he chooses, because he can make the soil to suit.

To illustrate the evil of inattention to soil, take the silver maples employed as shade trees in Philadelphia; where they are more generally used than any other tree. You may find it in every situation, till you believe that shade tree and silver maple are considered synonymous. For ground wet or dry, for soils light or heavy, it is all the same. Thus, it often finds itself in circumstances every way unsuited to it. The leaves become small; the growth short and meagre; the trunk hide-bound, and the branches covered with mosses and lichens. They live and grow—perhaps for years—but never to satisfaction. Scores of such specimens may be seen at any time in our streets. The blame is too often thrown on the wrong source. The nurseryman is charged with selling bad trees, and the remedy sought for in trees purchased from another dealer, "which also, in their turn, must follow them."

The number of species and varieties is now so great, that a fine collection of trees may be had in even a piece of ground with one uniform soil. Variety is generally pleasing; and the smallest lot might as well have its half dozen trees of different kinds, as in one monotonous sameness. If one tree only be wanted, I prefer it to be different from one's neighbor adjoining. In addition to the charm of variety, which is added to the pleasure of shade, emulation has here an innocent outset for its course, which will not fail to bring its gratifying reward.

One objection to variety, so far as shade trees is concerned, is its cost. A nurseryman can afford to sell a quantity of one thing for less, than for small lots of different ones. But, on reflection, few would be willing to forego the pleasure of that variety which is one of the charms of natural beauty—one of the means by which we contrast that which is superior with that which is beneath—and rest satisfied with the only change brought by the seasons, and the only pleasure that brought by its shade, when a trifling cost in the original outlay will "add all these things unto them." The saving of a dollar in a gratification which is expected to last for life, is a consideration which will have little weight when duly reflected on. A little extra expense in a selection of trees, a little extra though on appropriating each to its most proper soil, and a little extra care bestowed on their removal and replanting, will be amply repaid in the future beauty, variety, health and luxuriousness of shade trees.

## Grafting Wax.

A subscriber wishes to know the best method of making engrafting wax. As there are a variety of opinions as to what is the best kind to use, we will give several recipes which are recommended by good authorities. Baker says: "Take one part tallow, one part beeswax, and two parts resin. The tallow and beeswax should be melted first, then the resin, and the whole poured together and well stirred. After it is well mixed, it is poured in small quantities into a tub of cold water and worked like molasses candy. No more should be poured into the water at a time than can be worked at once, as it will cool very quickly and require to be melted again. It should be carried in a pot of hot water, and the hand of the operator should be smeared with some oily substance. For some of the smaller grafts, use waxed paper. For this purpose strips of paper are floated in the melted wax for a moment, so as to only moisten one side, and then be permitted to cool."

Warder recommends "resin, four or five parts; beeswax, one and one-half to two parts; linseed oil, one to one and one-half parts. This is made into a mass, to be applied by the hand. A very pleasant and neat mode of using the wax, is to pour it when melted, upon this muslin or strong paper, and spread it thin with a spatula; then cut into strips of convenient size."

Thomas gives this: "Linseed oil, one pint; resin, six pounds; beeswax, one pound; melted together, to be applied warm with a brush, or to be put on paper or muslin, or worked with wet hands into a mass, and drawn out into ribbons."—*Prairie Farmer.*

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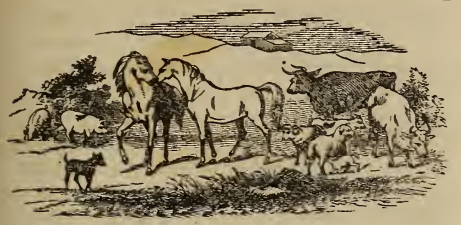
THREE bushels of coal ashes, mixed with two of gas lime, and made into stiff mortar with gas tar, spread on a level bed of small stones, well rammed down, produce a good pavement for a stable floor.

# Live Stock Register.



## RAISING OF SHEEP.

This is without doubt the most important branch of Sheep Husbandry, and one upon which too much attention cannot be bestowed. It may not perhaps apply so generally to those farmers in this immediate part of the State, for most of those who keep sheep at all keep what are called flying flocks; that is, they choose their stock from year to year, either buying lean sheep from the drovers, and, after keeping them awhile, sell them fat to the drovers again to go to the butchers; but still there are a great many farmers who keep standing flocks generally for the improvement of some particular breed. In order to breed sheep successfully it is necessary that several important particulars be strictly attended to. When I say successfully, I do not speak merely in regard to increase in numbers, for some of the poorer breeds of sheep will produce as many lambs as those greatly superior to them; but in the production of those animals which possess as many as possible of those valuable properties which distinguish the breed.

The first and most important of these, and the one upon which the future success of the flock in a great measure depends, is the selection of the flock of breeding ewes.

These should be chosen with reference to the following particulars: The frame work of the body should be of sufficient size to admit of the fœtus being properly developed; reference should also be had to the lacteal properties; and they should also be examined with reference to their wool and flesh-producing properties; also evince a quiet disposition and not be given unduly to wandering.

Without the possession of the first two properties it is impossible that anything but stinted animals can be produced; without the two second, all that is valuable in a sheep and for which alone sheep are raised, will, if not lost, be greatly impaired; and without the last there is danger of the lambs, after being dropped, being left to perish. Sheep possessing a quiet disposition also take on fat more rapidly.

The next particular, and one which is almost as important as the first, is the selection of the ram,—I say almost as important; for the question is only in respect to degree; for without doubt, if the ram is inferior to the ewes, the lambs will also be inferior to them; and as the ram's influence is felt as fully on the future flock as the ewe's so also is it a comparatively simple matter to select a ram of desirable qualities as it would be to select a flock of ewes possessing like qualities.

It is necessary that great care be taken in selecting a ram. It is not only necessary that as many desirable qualities as possible be combined in himself, but it should also be ascertained that his parents possessed like qualities; for it is by no means reasonable to suppose that the lambs gotten by a perfect animal will possess like points without those points have been regularly transmitted to him by his parents.

If the necessary care has been taken in the selection of the ram and ewes, it is but reasonable to suppose that the lambs will be superior animals, provided the proper amount of care and attention has been bestowed upon the ewes.

The raising of lambs will be materially assisted by attention to one or two points. It should be seen too that they are comfortably sheltered during inclement weather; they should have an airy apartment, yet it should be sufficiently close to exclude all draft and any excess of cold.

While with their mothers and on good grass, lambs will not require any extra feeding, although the addition of a little grain will be of benefit; but during those seasons of the year when it is necessary to keep them confined, care should be taken in selecting their food, and that kind should be chosen which has a tendency to more especially increase the bone and muscle than the fat.—*Cor. Germantown Telegraph.*

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Remedy for Hard-milking Cows.—A correspondent of *The New England Homestead* writes that he had a valuable young cow that milked so hard from her hind teats that it was not only very hard work, but very provoking, to be so hindered when time was pressing. By the aid of a probe, I ascertained that the obstruction was at the lower end of the teat; I, therefore, thought a little surgical skill might remove the evil. I took a very narrow-bladed knife, gave it a keen edge, took the teat in my left hand, inserted the point very gently into the milk passage, and then, without fear or trembling, gave a sudden thrust of the knife in the right direction, and the cure was effected. The cow started a little, and stood still. A few drops of blood followed the cut only. I then operated on the other with the same result. Another young cow that came of the above mentioned, had lost one-quarter of her bag, and milked so hard from one teat that the stream of milk was no larger than a small knitting needle. With the same success I operated upon that. They milked afterwards as easily as any one could desire, and no leaking of the milk followed.

## USEFUL RECIPES.

HEAVES IN HORSES.—The direct causes of heaves or broken wind are over-exertion and indigestion.

*Treatment.*—The object is to improve the patient's health; and if we can do this successfully, an improvement in a curable case generally follows. We must restore *digestion* in order to cure indigestion, and in this view we give aromatic tonics; the following we have used with considerable success:—Tincture of aromatic sulphuric acid, written for, by physicians, thus: Tr. acid sulph. aro. Dose, one drachm in a pint of water, night and morning. Most animals, however, will drink it from a bucket. In the mean time we put the animal on a course of the following alterative medicine: Powdered ginger, gentian, sulphur, salt, cream of tartar, charcoal, liquorice, elecampane, caraway seeds, and balm of Gilead buds (chopped fine,) equal parts. Dose, one ounce every night in the food.

Changes in diet, exercise, and management, calculated to fulfil the indications alluded to above, are indispensable. So soon as considerable improvement is perceptible, the aromatic tincture should be omitted; and instead of giving one ounce of the alterative as a dose, give half an ounce night and morning. A broken-winded horse should always be watered from a bucket, regularly three times a day; and if he be a foul feeder, arm him with a muzzle, and only remove it at *meal time.* In addition to the above remedies, we occasionally allow a small quantity of garlic, say a couple of heads every other day, chopped fine, and mixed in the food.—*American Stock Journal.*

LOSS OF APPETITE.—I have known some horses whose appetites were capricious and who consequently have fallen off in condition. Regular exercise and good hay and oats should keep a healthy horse in good condition. In order to give a good appetite the following powder should be divided into four doses and one given every other day in the horses feed: Powdered gentian 1 oz,; Powdered ginger, 1 oz; carbonate of iron, 1 oz.; and powdered liquorice root, 1 oz.

COUGH IN HORSES.—Mix up an ounce of extract of belladonna in half a pound of molasses and smear a tablespoonful of the mixture on the horses tongue three or four times a day. There should be enough to last for a week. Avoid feeding dusty hay or oats, as food of that kind is apt to produce irritation of the lungs.

WORM.—If a drachm of calomel is given daily for six days in bran, and then a dose of physic given on the seventh day, it will remove the worms from the intestines.

When there is much swelling and tenderness of the palate it should be lanced, but on no account should the hot iron be applied as it not only gives intense pain but renders the mouth ten times more tender after the application than it was before. In most of the cases of so called lampas which I am called on to examine, there is no swelling or tenderness of the palate. Though little pain is caused by lancing the palate, even that should not have been done when there is no occasion for it.—*Western Rural.*

TENDER HOOFS IN HORSES.—What effectual remedy can be applied to a horse's hoofs that are tender—don't appear to grow fast as is usual, and require shoeing often to make the nails clench? What remedy for worms, three inches in length?—*Cor. American Stock Journal.*

Moisten your horses hoofs with Salt Water or urine once a day and stuff them occasionally with a mixture of clay and cowdung. For worms when a horse can be spared a strong dose of physic is an excellent vermifuge, but a better medicine and one not interfering with either feeding or work of the horses, is emetic tartar with ginger made into a ball with linseed meal and molasses, and given every morning before the horse is feed half an hour or so.

### Old Mortar as Manure.

Old mortar acts most beneficially as a manure.—It always contains a large amount of nitrate of potash (saltpetre) and this is formed by the decomposition of the hair used in compounding it, and from other causes.

Nitrate of lime is also present in considerable quantities. Lichens and mosses are continually being formed, and some of microscopic size, and as these decay they supply nitric acid, which, in turn, forms the nitrate of lime, potash, etc. It should be remembered that a small portion of animal matter is enough to produce a considerable quantity of potash, inasmuch as every atom of nitrogen that is disengaged during the decomposition of animal matter of any kind, that requires five atoms of oxygen to become nitric acid, consequently one part of nitrogen becomes in this process six parts of nitric acid, and these six parts of nitric acid, in their turn, by uniting with an equal quantity of potash, becomes twelve atoms potassa.

During the French wars, mortar was removed from the cellars of Paris, and replaced by new mortar, for the purpose of making nitrate of potash, (saltpetre,) by merely lixiviating the old mortar, and concentrating the solution. In some countries, farmers are compelled by law to appropriate considerable proportions of their manures to the formation of nitre beds, as they are called, the saltpeter being required by the government for the making of gun-powder.

The valuable nitrate of potassa and nitrate of lime as a manure, will be readily understood; it assists decomposition in the soil, supplying the potash for such plants as require it, and the nitric acid being set free form a new line of salts with the various components of the soil; and, as all the nitrates are valuable in plant-life, old mortar is among the best for that purpose.—*Ex.*

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BIRDS VS. FRUIT.—We often see inquiries in our agricultural exchanges, as to the best means of preventing birds from destroying fruit. The answers to this enquiry are almost as various as the birds, and most of them as difficult to apply as the birds are to catch.

The most effective plan we ever tried was, by killing, ourself, or hiring some boys to kill, a number of Chicken or Sparrow Hawks, skin and stuff them, then place them on the tops of some of the trees in the orchard. But few birds would attack the fruit in an orchard with such apparent enemies to meet. The stuffed Hawks can be preserved for years by being carefully put away after the fruit is gathered. Try it.—*Ex.*

# The Poultry House.

## BONES AS FOOD FOR FOWLS.

Chalk, sand, ashes and lime have all been recommended as additions to the food of fowls for the purpose of making them lay. We have found finely chopped bones the best material for this purpose. Bones contain a great deal of animal matter, (fat, gelatine, &c.,) and also a large proportion of carbonate and phosphate of lime, as the following analysis, by Berzelius, of the bones of the ox, will show:

| | |
|---|---|
| Cartilage vessels | 33 30 |
| Phosphate of lime | 55.45 |
| Carbonate of lime | 3.85 |
| Fluoride of calcium | 2 90 |
| Phosphate of magnesia | 2.05 |
| Soda, with a little common salt | 2.45 |
| | 100.00 |

Bones, however, usually have attached to them a quantity of flesh and fat, which materially change the proportions given in the above analysis, and render the bones more valuable. The fat enables the fowls to resist the cold; the flesh gives them muscle and material for the formation of eggs; the carbonate of lime furnishes egg-shells, and the phosphate yields materials for bones and for the tissues.

A boy can, in a few minutes, chop up with a hatchet all the lesser bones that come from the table, and we regard them as very valuable. If we were to start a poultry establishment on a large scale, we should certainly make arrangements to procure all the fresh bones possible. It would not be difficult to devise a machine that would crack them into fragments the size of large beans, and we would get paid twice—first through the chickens, and secondly through the improved character of the manure.—*Cor. Country Gentleman.*

## CARE OF YOUNG TURKEYS.

The first diet offered to turkey-chicks should consist of eggs boiled hard and finely mixed, or curd with bread-crumbs and the green part of onions, parsely, etc., chopped very small and mixed together so as to form a loose, crumby paste; oatmeal with a little water may also be given. They will require water; but this should be put into a very shallow vessel, so as to insure against the danger of the chicks getting wet. Both the turkey-hen and her chickens should be housed for a few days; they may then, if the weather be fine, be allowed a few hours liberty during the day, but should a shower threaten they must be put immediately under shelter. This system must be persevered in from three to four weeks. By this time they will have acquired considerable strength, and will know how to take care of themselves. As they grow older, meal and grain may be given more freely. They now begin to scratch for insects and to dust their growing plumage in the sand. At the age of about two months, or perhaps a little more, the males and females begin to develop their distinctive characteristics.

In the young males the carunculated skin of the neck and throat, and the horn-like, contractile comb on the forehead, assume a marked character. This is a critical period. The system requires a full supply of nutriment, and good housing at night is essential. Some recommend that a few grains of cayenne pepper, or a little bruised hemp seed, be mixed with their food. The distinctive sexual marks once fairly established, the young birds lose their names of "chicks," or "chickens," and are termed "turkey-poults." The time of danger is over, and they become independent, and every day stronger and more hardy. They now fare as the rest of the flock, on good and sufficient food.

With respect to the diseases of the turkey, with them as with all other poultry, prevention is better than cure. The most important rules are, let the chicks never get wet, and encourage them to eat heartily by giving a good variety of food; yet to beware of injuring the appetite by too much pampering. Taking a pride in them is the great secret of success in the rearing of domestic poultry.—*Ex.*

## NEW METHODS OF COTTON CULTURE.

According to the Yorkville, S. C. *Enquirer*, a planter in Edgefield district, in that State, under a process similar to that proposed by Mr. Poullain, raised last year fifteen hundred pounds of lint cotton to one acre of land. He planted two stalks to the hill, at a distance of eight feet each way. The hills were prepared as if for transplanting fruit trees, being dug down to a depth of twenty inches, and two feet in diameter. Sandy loam and manure was then filled in, and the seed planted. The enormous yield is attributable to the thorough subsoiling, the manure and the spade—the latter being sufficient to allow the rays of the sun to penetrate to the lower branches of the plant and develop these fully. As cotton is essentially a sun plant, never thriving unless fully supplied with sun warmth, the philosophy of this method is at once apparent.

Another method has been tried in Union district, in the same State, and with the Dickson improved seed. This is to subsoil deeply, and plant in hills three feet each way, thinning out the plants when large enough, to two in each hill. About fifteen hundred pounds of seed cotton to the acre was obtained from a five acre field planted in the spring in this way.

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Our friends should procure subscribers for our new volume for 1869. Only $1.50.

Lyman's Mammoth Cluster Tomato.

Wm. H. Lyman, of Leverette, Mass., to whom we are indebted for the above cut of this superior Tomato, furnishes the following description of the same:

"This Tomato is a cross between a French unknown variety and the Lester's Perfected, retaining the smoothness and solidity of the latter, growing in clusters, each stem bearing from six to twelve tomatoes on it. It is perfectly smooth and nearly round, about the size of a Baldwin apple, color of a rosy pink, and keeps well; solid, has but few seeds, and is no doubt one of the best early varieties we have.

It is unexcelled for eating raw, and is delicious for cooking, being very high flavored. In earliness it excels the "Keyes Tomato," and ripens its fruit evenly, about TEN DAYS before the early Red. Undoubtedly one of the best market varieties.

This variety, was obtained from seed in 1864."

## New Manner of Dissolving Bones for Farming Purposes.

Professor Henkoff says: Suppose you have 4,000 pounds of bones, you need 4,000 pounds of ashes, (averaging ten per cent. of carbonate of potash,) 600 pounds unslacked lime, and some 4,500 pounds (fifty-five and a half gallons) of water. Dig a hole some two feet deep, large enough to receive the bones and one-half their volume besides; parallel to this you dig another one, twenty-five per cent. larger both being filled with bones. First slack the lime and mix with your ashes, covering 2,000 pounds of bones in the smaller one. When it gets dry add continually water enough to keep it wet. When the bones crumble in your fingers, then take the whole mass out and spread it over the bones in the second hole, leaving the decomposition to go on.—When this is done, let the mass dry; and to make it fit for use add peat powder or mellow garden soil until it is well dried and powdery. Let it be shoveled over several times, and then apply to your fields.

Thus you get a fertilizer averaging twelve per cent. of phosphate of lime; two per cent. of alkalies, and six per cent. of nitrogen.

The pits used in this process must of course be dug in soil to a great degree impervious to water.—Clayey soil will answer, if first sprinkled and then pounded, or clay may be "puddled" in a basin in any soil, and a water tight pit be made. If the bones are tolerably fresh, there will be very little loss of ammonia. We have known the softening of the bones to be complete on a small scale.—*Agriculturist.*

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There are thirty million grape bearing vines in the State of California.

POTASH FOR OATS.—On the Eastern Pennsylvania Experimental Farm in Chester county, the oat crop has been very light, but the Superintendent informs the *Practical Farmer* he had occasion to burn the trimmings of his Osage orange hedge along the line of his oat field; where the heap was burned and the ashes spread around, the oats stood up well, with a stiff straw, had a heavy head and a superior quality of grain. On a neighboring nursery where they had occasion to burn a quantity of refuse trees, the same effect was observed on the oats crop to a rather remarkable extent. The inference to be drawn from these accidental experiments is, that potash is a special fertilizer for oats, or at least a requirement in that soil. The analysis of the grain of oats, as well as its straw, indicates also that potash enters largely into its composition.

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. CULTURE OF POTATOES.—I would advise new beginners, in raising potatoes, not to be so particular about the number of eyes the set of potatoes has, as the size of the piece. A potato smaller than a turkey's egg, should never be used for planting. That size will make fewer sets. Plant the rows three feet apart, and the sets one foot in the row. Ground that has the manure plowed in, in the fall, will produce one-third more, and of an evener size, than that manured in spring and planted immediately; the manure absorbs the natural moisture of the ground, and the crop is tardier in sprouting.—*Cor. Country Gentleman.*

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We received a communication from our valued correspondent "D. L.," of Howard county, too late, however, for the present number. It will appear in our April issue.

# Ladies Department.

[Original.]

## DREAMING.

BY TOCHE.

I've been dreaming! Pleasure, that
Fair, deceptive maid, set me dreaming.
Her trailing garments touched me as
She passed; her silvery voice, woke
In my heart, an answering chord,
As whispering low,—"Rejoice," she said,
"Vast is my dominion: O mortal!
'Twere better far to wreath the face
With smiles, to spend the day in
Visioning, than striving after that, which,
Like yon star, glows bright awhile,
Then, fades from out the sight.
See! what a throng,—dull Care
Forgetting—follows in my train.
For them, the hours in their
Flight, leave only joy; not tears,
Not broken hearts! * * *
* * * * O, fleeting
Shadows of delight! like the light
Of dying embers on the hearth, I
Watch ye fading from my sight.

ILCHESTER, MD.

## THE VOLUNTEER COUNSEL.

JOHN TAYLOR was licensed, when a youth of twenty one, to practice at the bar. He was poor, but well educated, and possessed of extraordinary genius. He married a beauty who afterward deserted him for another.

On the 9th of April, 1840, the court house in Clarkville, Texas, was crowded to overflowing. An exciting case was to be tried. George Hopkins, a wealthy planter, had offered a gross insult to Mary Ellison, the young and beautiful wife of his overseer. The husband threatened to chastise him for the outrage, when Hopkins went to Ellison's house and shot him in his own door. The murderer was arrested and bailed to answer the charge. This occurrence produced great excitement, and Hopkins, in order to turn the tide of popular indignation, had circulated reports against her character, and she had sued him for slander. Both suits were pending—for murder and slander.

The interest became deeper when it was known that Ashley and Pike, of Arkansas, and S. S. Prentiss, of New Orleans, by enormous fees, had been retained to defend Hopkins.

Hopkins was acquitted. The Texas lawyers were over whelmed by their opponents. It was a fight of a dwarf against giants.

The slander suit was for the 9th, and the throng of spectators grew in numbers as in excitement. Public opinion was setting in for Hopkins; his money had procured witnesses who served his powerful advocates. When the slander case was called, Mary Ellison was left without an attorney—all had withdrawn.

"Have you no counsel?" inquired Judge Mills, looking kindly on the plaintiff.

"No, sir; they have all deserted me, and I am too poor to employ any more," replied the beautiful Mary, bursting into tears.

"In such a case, will not some chivalrous member of the profession volunteer?" said the judge, glancing around the bar.

The thirty lawyers were silent.

"I will, your honor," said a voice from the thickest part of the crowd, behind the bar.

At the sound of the voice many started—it was so earthly, sweet and mournful.

The first sensation was changed into laughter when a tall, gaunt, spectral figure elbowed his way through the crowd, and placed himself within the bar. His clothes looked so shabby that the court hesitated to let the case proceed under his management.

"Has your name been entered on the rolls of the State?" demanded the Judge.

"It is immaterial," answered the stranger, his thin, bloodless lips curling up with a sneer.

"Here is my license from the highest tribunal in America!" and he handed the Judge a broad parchment.

The trial went on.

He suffered the witnesses to tell their own story, and he allowed the defense to lead off. Ashley spoke first, followed by Pike and Prentiss. The latter brought the house down in cheers, in which the jury joined.

It was now the stranger's turn. He rose before the bar, not behind it, and so near the wondering jury that he might touch the foreman with his long bony finger. He proceeded to tear to pieces the arguments of Ashley, which melted away at his touch like frost before a sunbeam. Every one looked surprised. Anon he came to the dazzling wit of the poet lawyer Pike. Then the curl of his lip grew sharper, his smooth face began to kindle up and his eyes to open, dim and dreary no longer, but vivid as lightning, red as fire globes and glaring as twin meteors. The whole soul was in the eye; the full heart streamed out of his face. Then without bestowing an allusion to Prentiss, he turned short round on the perjured witnesses of Hopkins, tore their testimony into threads, and hurled in their faces such terrible invectives that all trembled like aspens, and two of them fled from the court house. The excitement of the crowd was becoming tremendous. Their united life and soul seemed to hang upon the burning tongue of the stranger, and he inspired them with the power of his passions. He seemed to have stolen nature's long hidden secret of attraction. But his greatest triumph was to come.

His eyes began to glance at the assassin Hopkins, as his lean, taper fingers assumed the same direction. He hemmed the wretch within a wall of strong evidence and impregnable argument, cutting off all hope of escape. He dug beneath the murderer's feet ditches of dilemmas, and held up the slander to the scorn and contempt of the populace. Having thus girt him about with a circle of fire, he stripped himself to the work of massacre.

Oh! then it was vision both glorious and dreadful to behold the orator. His action became as impetuous as the motion of an oak in a hurrricane. His voice became a trumpet filled with wild whirlpools, deafening the ears with crashes of power, and yet intermingled all the while with a sweet undersong of the softest cadence. His forehead glowed like a heated furnace, his countenance was haggard, like that of a maniac, and ever and anon he flung his long, bony arm on high as if grasping after thunderbolts.

He drew a picture of murder in such appalling colors, that, in comparison, hell itself might seem beautiful; he painted the slanderer so black that the sun seemed dark at noonday, when shining on such a monster. And then fixing both portraits on the shrinking Hopkins, fastened them there forever. The agitation of the audience amounted almost to madness.

All at once the speaker descended from the perilous height. His voice wailed out for the murdered dead and living—the beautiful Mary, more beautiful every moment as her tears

flowed faster and faster, till men wept and sobbed like children.

He closed by a strange exhortation to the jury, and through them to the bystanders; he advised the panel, after they should bring in a verdict for the plaintiff, not to offer violence to the defendant, however richly he might deserve it; in "not to lynch the villain, but to leave his punishment with God." This was the most artful trick of all, and the best calculated to insure vengeance.

The jury rendered a verdict of fifty thousand dollars; and the night afterward Hopkins was taken out of his bed by lynchers, and beaten almost to death. As the court adjourn d, the stranger said:

"John Taylor will preach here this evening at early candle light."

He did preach, and the house was crowded. I have listened to Clay, Webster and Calhoun—to Dwight, Bascom and Beecher—but never heard anythiug in the form of sublime words even approximating to the eloquence of John Taylor—massive as a mountain, and wildly rushing as a cataract of fire.

## Quantity of Seed for an Acre.

Seedsmen vary much in their directions for the quantity of seed to be planted to the acre. In the following list I give the quantities of the more common sorts used by practical farmers:

| | |
|---|---|
| Dwarf Beans, in drills | 1½ bushels |
| Peas, that make small vines | 1½ " |
| Peas, that make large vines | 1½ " |
| Beets, in drills | 4 pounds |
| Cabbage, in hills | half pound |
| Cabbage, in bed to transplant | 2 ounces |
| Carrot, in drills | 1 to 1½ lbs. |
| Musk Melon, in hills | 1 to 1½ lbs. |
| Mangold Wurtzel, in drills | 4 lbs. |
| Onion, for bulbs, to sell green or to trace, in drills | 6 to 8 lbs. |
| Onion, for bulbs, in drills | 3 to 4 lbs. |
| Onion for Setts, in drills | 30 lbs. |
| Onion Setts, in drills | 10 bushels |
| Potatoes, in drills, cut, depends on number of eyes | 8 to 14 lbs. |
| Radish, in drills | 5 pounds |
| Spinach, in drills | 10 to 15 lbs. |
| Sage, in drills | 4 to 6 lbs. |
| Squash, (running varieties) in hills | 2 to 2½ lbs. |
| Squash (brush varieties) in hills | 3 to 4 lbs. |
| Tomato, in bed to transplant | 2 ounces |
| Turnip, in drills | 1 to 1½ lbs. |

From James J. H. Gregory's Seed Circular and Retail Catalogue—Marblehead, Mass.



# DOMESTIC RECIPES.

CORN BREAD.—One quart of corn meal, one pint of wheat flour, two eggs, and a little salt, with sour buttermilk sufficient to make a very stiff batter. Mix thoroughly, and then add one teaspoonfull of soda, dissolved in a very little hot water. Stir this in and pour into well-greased pans, sufficient to be one and a half inches thick when cooked. Place in a hot oven, and bake until done, say half an hour. Carry to the table hot. If all should not be used, bake over again, and it is about as good as when first baked.

Half a pint of flour and one egg will be very good, but not quite as good as the above.

The sourer the buttermilk the better, if it is not bitter.—Success depends very much on the due proportion of acid and alkali.

Fine meal makes much better bread than coarse. If it does not keep as well, provide less at one time. Dent, or gourd-seed corn makes better meal than flint corn.

Some are shocked at the idea of eating drugs with their food, and exclaim against the use of alkali in cooking. Let such consider that acid neutralizes the caustic property of the alkali; and if they never eat anything more unhealthy than that, they will do well. MOLLIE, *in German. Tele.*

TO CURE CORNS.—A recipe for this purpose very properly belongs to a work on domestic medicine, but we have been so often solicited to give a remedy for these "tortures of the flesh," that we give the one which, in our own experience, we have found most reliable. The corn should first be well softened by soaking the foot in warm water, and as much of it removed by a sharp instrument as can be done without pain. Then, apply over the surface a very small quantity of pulverized nitrate of silver, and cover it with a piece of linen or lint, in order to keep it in its place. After twenty-four hours, the foot may be soaked again, and that portion of the corn which has become blackened and disintegrated by the caustic removed by scraping, or with a knife. Repeat the operation till a cure is effected.—*Journal of Chemistry.*

MILK YEAST.—In case you should get out of yeast and are hurried, make milk yeast. Take one pint new milk, one teaspoon salt, table-spoon flour stirred in, stand it in a kettle of water, by the stove, and keep it lukewarm all the time. When very light, add lukewarm water, make into loaves or biscuit, and let them rise by the fire before cooking.

BRAN YEAST.—Take a quart or two of bran in a kettle, with a teaspoon of salt, pour on hot water till it is as thick as mush, let it stand over night, if in cold weather, by the stove. In the morning, when it has raised up and seems very spongy, strain it and take the liquor to mix your bread, adding water, if necessary; mix the bread and let it stand to raise before moulding it into loaves, then let it raise again in the pans. MARY GILT, *in Germantown Telegraph.*

SUPERIOR DRESSING FOR CHICKEN SALADS.—Beat the yolks of 6 eggs very light, pour over them a teacup of boiling vinegar, and return to the saucepan, stirring it constantly for a few minutes, then set it away to cool. Rub a large tablespoonful of mustard with 6 spoonfulls of oil; grate in half a potato; add a teaspoonful of salt and a little pepper; harden the whites by boiling the eggs; chop them up and scatter among the salad; then stir all together and pour over just before serving. Hear what Sidney Smith said of such a dish:

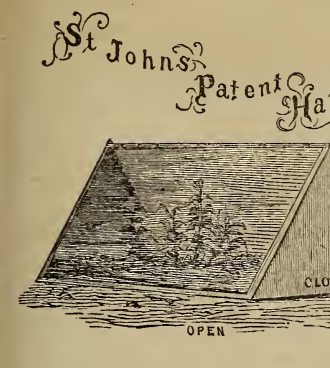
> "Oh tempting banquet, most deliciout treat
> 'Twould lure the dying anchorite to eat;
> Back to the world he'd turn his weary soul,
> And thrust his finger in the salad bowl!"

NAILS IN THE FOOT.—To relieve from the terrible effects of running a nail in the foot of man or horse, take peach leaves, bruise them, apply to the wound, confine with bandage, and the cure is as if by magic. Renew the application twice a day, if necessary, but one application generally does the work. Both man and horse have, in a few hours, when apparently on the point of having the lock-jaw, been cured.

TO COOK POTATOES.—Pare and cut in rather thick slices, put them in a frying or dripping pan with a little water, a piece of butter or lard; salt and pepper them, cover up and put over a fire. By the time the water evaporates they are cooked; then allow them to brown slightly, and serve hot.

FRESH FISH.—All fresh fish should be dried thoroughly with a clean cloth before putting into the fat, and should be rolled well in sifted Indian meal. Perch and trout, however, are improved by being dipped in a mixture of beaten egg and bread crumbs. The fat in which fish is fried should not be poured into the dish when the fish is served up.

Tongue, after it has been boiled, cut into thick slices, and stewed in a rich, brown gravy, makes a very nice corner dish.




### A New Article for Gardeners and Florists.

This device, as shown by the above cut, is designed to provide a portable glass for the forcing and protection of early Vegetables and Plants, which may be closed, or folded up compactly, when not in use. As will be readily understood from the engraving, the apparatus consists of two flat glasses, with suitable frames, and are hinged or pivoted together at their adjacent edges, the two glasses, thus connected, being furnished with end pieces of flexible material, in such a manner that the glasses may be spread apart at an angle to each other, as shown in the cut marked "open," with the end pieces expanded, so that the device may cover and surround the plant or bed, as the case may be, or have its glasses brought parallel and closed together, with the end pieces folded between them, as shown in the cut marked "folded"—the whole being thus made to occupy but very little space when not in use. This "Hand Glass" was thoroughly tested during the spring of '68, and proved itself to be the best yet offered to the public. Prices—without the glass—Size, 7 x 9 inches, $25 per 100; 12 x 14 inches, $30 per 100. Manufactured by Silas St. John, 7 Broadway, New York City; or, Wm. H. Pond, Milford, Conn.

### BOOKS, CATALOGUES, &c.

We have received the following new publications, relating to Agriculture and kindred subjects.

**"The Minnesota Monthly"**—Published at St. Paul, Min. devoted to Agriculture, Horticulture, Domestic Economy and general information—at $2 a year.

**"Leisure Hours."**—A monthly Magazine of History, Biography, Prose, Poetry, &c. Published at Pittsburg, Pa. by O. Dwyer & Co.,—at $2 per annum.

**"Experimental Farm Journal"**—Devoted to the interest of the American Farm, published by G. A. Deitz & Co., at Chambersburg, Pa. at $1.50 per annum.

**The Old Oaken Bucket Literary Magazine,**—Published by Cowan & Protzman at Indianapolis, Ind., at $2 per annum.

We are also in receipt of the Western Farmer Annual for 1869, and the Prairie Farmer Annual, for 1869, supplemental editions of the Magazines, after which they are named, containing valuable suggestions to Farmers, Fruit Growers and Florists.

**Wood's Household Advocate,**—A monthly, devoted to Knowledge, Virtue, and Temperance, published at Newburgh, N. Y. by S. S. Wood, at 75 cents per annum.

From John A. Riddle, Esq., Manchester, N. H. we have received the pamphlet entitled "Sterility is Laid," which we reviewed in a former number of the Farmer.

From J. C. Maccabe, Secretary of the Iron Mountain and Helena R. R. his report to his excellency Powell Clayton, Governor of Arkansas.

Of Catalogues and lists of Plants, Flowers, Field and Garden Seeds, &c. we have received the following, which will be sent on application to any address:

M. O'Keefe, Son & Co., Rochester, N. Y.—Guide to the Flower and Vegetable Garden for 1869.

J. M. Thorburn & Co., New York, annual Descriptive Catalogues of Flower Seeds and Bulbous Roots—for spring of 1869.

C. G. Crane & Co., New Ark N. J. annual Catalogue of Vegetable, Agricultural and Flower Seeds, for 1869.

E. J. Evans & Co., York, Pa., Catalogue of Fresh and Genuine Field and Garden Seeds for 1869,

John Vanderbilt & Bros. 23 Fulton Street, New York, annual Catalogue of choice and select Garden, Flower and Field Seeds.

Purdy & Hance, South Bend Indiana.

Purdy & Johnson, Palmyra New York.

"Small Fruit Instructor," containing plain and practical directions for Planting, Growing and Marketing Small Fruits. Price 10 cents.

James J. H. Gregory, Marblehead, Mass. annual Circular and Retail Catalogue of Garden Vegetable Seeds, for 1869.

E. Whitman & Sons, Baltimore, Md. Catalogue of Field, Garden and Flower Seeds, of which they have a large stock, including many new and valuable varieties.

Hoopes, Bro. & Thomas, Cherry Hill Nurseries, West Chester, Pa., Annual Trade List for 1869.

Messrs. David Landreth & Son, of Philadelphia have published a small pamphlet entitled "Brief remarks on Gardening in the Southern States for Northern Markets," which contains valuable information and which we recommend to our readers either engaged or about to engage, in growing vegetables for market.

We have also received from R. H. Allen & Co., 189 and 191 Water Street, New York, a copy of their Catalogue of Vegetable, Flower, Fruit, Herb and Field Seeds, for 1869 which they will furnish on application.

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An English farmer broke up thirty acres of water meadow which produced nothing but coarse sedge grass and rushes. After it was thoroughly drained and laid down to grass, he was able to cut four crops of green fodder annually of the best quality. Draining of all similar land will be attended, when thoroughly done, with the same results everywhere.

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The following Operatic Gem is Sung nightly at the Salt Lake Theatre with the most tremendous applause, and three cheers for the gobler.

A Grasshopper sat on a sweet potater vine,
On a sweet potater vine;
On a sweet potater vine,
And a turkey gobler came up from behind,
And yanked the poor little grasshopper off
of the sweet potater vine.

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A correspondent wishes to know what kind of agricultural product horse-races are; they being the chief thing exhibited at agricultural fairs.

# BALTIMORE MARKETS---Feb. 26.

Prepared for the "MARYLAND FARMER" by JOHN MERRYMAN & Co., BALTIMORE.

[*Unless when otherwise specified the prices are wholesale.*]

BEESWAX—Western 38 cts.; Southern 40 cts.

COFFEE.—Rio 14½@18¼ cts., gold.

COTTON.—Low Middling 27½@28 cts.; Middling, 28@28¼ cents; Ordinary Upland 25 cents.; Good Ordinary 28 cts.

FEATHERS.—Common to mixed 40@50 cts. per lb.; fair to good 55@60 cts.; prime live geese, 80 cts.

FISH.—No. 1 Bay mackerel $25@27½; No. 1 Shore $22@23; No. 2 $18@19; No. 3 $13@14; medium $12 00@13; Labrador herring $8.50@9.50; gibbed $5.50@6.50; Codfish $5.50@7, per 100 lbs.

FLOUR—

| | | |
|---|---|---|
| Howard Street Super | $ 6.25 @ | $ 6.75 |
| " " Shipping Extra | 7.25 @ | 8.50 |
| " " High Grades | 9.50 @ | 10.50 |
| " " Family | 9.75 @ | 11.50 |
| Western Winter Super | 6 00 @ | 6.75 |
| " Shipping Extra | 7.00 @ | 7.50 |
| " Choice Extra | 8.00 @ | 8.50 |
| " Family | 9.50 @ | 10.00 |
| Northwestern Super | 6.00 @ | 6.50 |
| do Extra | 7.00 @ | 7.75 |
| City Mills Super | 6.25 @ | 7.50 |
| " " Standard Extra | 7.50 @ | 7.75 |
| " " Shipping brands Extra | 9.25 @ | 9.50 |
| Patapsco, Horicon, Reservoir and Weverton Family | 00.00 @ | 12.50 |
| G. W. Legg's Family | 00 00 @ | 13.50 |
| Union Mills Acme Family | 00.00 @ | 14.00 |
| Greenfield Family | 00.00 @ | 14.00 |
| James S. Welch's Family | 15.00 @ | 15.00 |
| Baltimore High grade Extra | 00.00 @ | 11.25 |
| Ashland Family | 00.00 @ | 12.50 |
| Linganore | 00.00 @ | 12.50 |
| Rye Flour | 6.50 @ | 6.75 |
| Corn Meal—City Mills | 4.25 @ | 4.50 |
| Buckwheat—New York ℔ 100 lb | 3.50 @ | 4.00 |
| " Pennsylvania | 3.25 @ | 4.00 |

FERTILIZERS—

The Agent of the Peruvian Government having closed out the entire Stock at this Port, dealers are charging $80@85 per 2000 lbs., as to quantity.

| | | |
|---|---|---|
| Turner's Excelsior | 70 | ℔ ton of 2000 lbs. |
| Turner's Ammo. S. Phos | 55 | ℔ ton " |
| Coe's Ammo. S. Phos | 55 | ℔ ton " |
| Soluble Pacific Guano | 60 | ℔ ton " |
| Redonda Guano | 30 | ℔ ton " |
| Flour of Bone | 60 | ℔ ton " |
| Andrew Coe's Super-phosphate | 60 | ℔ ton " |
| Baugh's Raw Bone S. Phos | 56 | ℔ ton " |
| Baugh's Chicago Blood Manure | 50 | ℔ ton " |
| " " Bone Fertilizer | 46 | ℔ ton " |
| Grimes' Pat. Improved Fertilizer | 48 | ℔ ton " |
| Zell's Raw Bone Phosphate | 56 | ℔ ton " |
| Rhodes' do | 50 | ℔ ton " |
| Mapes' do | 60 | ℔ ton " |
| Bone Dust | 45 | ℔ ton " |
| Horner's Bone Dust | 45 | ℔ ton " |
| Dissolved Bones | 60 | ℔ ton " |
| Baynes' Fertilizer | 40 | ℔ ton " |
| " Fine Ground Bone | 45 | ℔ ton " |
| "A A" Mexican Guano | 33 | ℔ ton " |
| "A" do. do | 30 | ℔ ton |
| Moro Phillips' Super-Phosphate | 56 | ℔ ton |
| Berger & Burtz's S. Phos. of Lime | 56 | ℔ ton |
| Md. Fertilizing & Manufacturing Co's Ammoniated Super-Phosphate | 50 | ℔ ton |
| Fine Ground Bone Phosphates | 30 | ℔ ton |
| Plaster | $2.25 | ℔ bbl. |

Sulphuric acid, 3 cts. ℔ lb.—(Carboy $3.)

Nitrate of Soda (refined Saltpetre) 6¼ cts. per lb in kegs of 100 lbs.

GRAIN.—*Wheat*—Prime to choice red 1.70@1.75; common to good do. 1.90@2; Maryland white 2.00 @ 2.25.—*Corn*—Prime new white 92@95cts; damp 83@84 cts.; old white 90; new yellow 69@70. *Oats*—90@91 cts. weight.—*Rye*—$1.50@1.55.

HAY AND STRAW.—Maryland Timothy baled $20@22; Rye Straw $17@18 per ton.

MILL FEED.—Brown Stuff 25 cts; Middlings 35@38 cts., per bushel.

MOLASSES—Porto Rico, 65 cts; Cuba clayed 52@54 cts. E. Island 10@20 cts. New Orleans 70@80.

POTATOES.—Jerseys 85@90 cents per bushel; Eastern 95@$1.

PROVISIONS.—Shoulders 13 cts.; Rib sides 15 cts.; clear rib 18 cts.

SALT.—Fine $2 90@3.10, per sack; ground alum $2.10@2.20; Turks Island 50@55 cts., per bushel.

SEED.—Clover $10.00 Timothy $3.75; Flax $2.55.

SUGAR.—Cuba 14@14¼; Porto Rico 14@15; Demarara 15¾@16¾ cts.

TOBACCO—

| | | |
|---|---|---|
| Maryland—frosted to common | $ 4.00@ | $ 5 50 |
| " sound common | 6.00@ | 7.00 |
| " good do | 7.00@ | 8.00 |
| " middling | 8.50@ | 10.50 |
| " good to fine brown | 11.00@ | 15.00 |
| " fancy | 17 00@ | 30.00 |
| " upper country | 7.00@ | 35.00 |
| " ground leaves, new | 4.00@ | 13.00 |
| Ohio—Inferior to good common | 4 00@ | 6 00 |
| " brown and greenish | 7.00@ | 8 00 |
| " good and fine red and spangled | 00.00@ | 00.00 |
| " medium and fine red | 9.00@ | 18.00 |
| " common to medium spangled | 9.00@ | 13.00 |
| " fine spangled | 15.00@ | 20.00 |
| " fine yellow and fancy | 20.00@ | 30.00 |
| Kentucky—common to good lugs | 8 00@ | 10.00 |
| " common to medium leaf | 11.00@ | 14.00 |
| " good to fine | 15.00@ | 18.00 |
| " select leaf | 20.00@ | 25.00 |

WOOL.—Unwashed, 30@33 cts.; burry 25@27 cts.; tub washed 50@53 cts; pulled 33@38 cts.

WHISKEY.—1.01@1.02 cts.

## Preparation of Bones for Use as Manure.

As some menbers were anxious to obtain directions for the preparation of dissolved bones, he considered that it would be useful to give some advice on the subject. He would recommend the farmers to adopt the following plan: Place in a wooden trough, or tub, the bones, broken into as small pieces as possible, and pour upon them one-third of their weight of boiling water, and having steamed the mass so as to render the bones completely moist, add one-third of the weight of the bones of sulphuric acid and common vitriol of the bleacher, and mix the materials completely, by stirring them, by means of a wooden shovel or old spade. The mixture may be conveniently made in an old sugar hogshead, and should be allowed to remain some weeks previous to being used. It may be mixed, if necessary, with dry peat, mould, or real charcoal, or with sawdust; but lime should not be added to it. By carefully following these directions, the farmer may obtain a compound of high fertilizing value, and much superior to many of the specimens of dissolved bones offered for sale. The addition of slacked lime and soapboilers' refuse, which some persons occasionally use, should be avoided. By employing the bones, as described, the manure will be found to contain a large amount of soluble phosphate, which very few of the advertised manures afford.—*Dr. J. F. Hodges, of Belfast, at a meeting of the Chemico Agricultural Society, of Ulster.*

OFFICE OF THE

# INSPECTOR OF GUANO,

**South Second Street,**

BALTIMORE, MD.

FEBRUARY, 1869.

In compliance with law, and for the general information of the public, the following analyses of guano imported to date are published:

*Peruvian (or Ammoniated Guano) No Arrivals.*

| *Date.* | *Name of Vessel.* | *Where from.* | *Phos'c Acid.* | *Equal Bone Phos. Lime.* |
|---|---|---|---|---|
| May 4 | —Schooner Rattler, | Rodunda, | 13 69 | 29.88 |
| 23 | —Brig Romance, | Navassa, | 30 69 | 66.99 |
| 29 | —Brig Sea Breeze, | Rodunda, | 14.45 | 31.54 |
| June 1 | —Schr. Annawan, | Rodunda, | 13.97 | 30.50 |
| 10 | —Brig Julia F. Carney, | Swan Island, | 29.750 | 64.95 |
| July 10 | —Schooner Alcyon, | Rodunda, | 15.375 | 33.565 |
| 14 | —Brig Delmonte Locke, | Mexican, | 24.111 | 52 635 |
| 15 | —Brig Romance, | Navassa, | 24.403 | 53 274 |
| | | | 35.111 | 76.651 |
| Aug. 3 | —Schooner Dauntless, | Orchilla, | 23.245 | 50.746 |
| 3 | —Brig Jno. Givin, | Rodunda, | 13.777 | 30.076 |
| 4 | —Brig Warrior, | Rodunda, | 14.045 | 30.661 |
| 7 | —Schooner Champion, | Rodunda, | 14.123 | 30.832 |
| 8 | —Brig Ernest and Alice, | Altavela, | 17.720 | 38.684 |
| 8 | —Schr. Mary Banks, | Mexican, | 23.561 | 51.436 |
| | | | 32.580 | 71.125 |
| 8 | —Schooner Lilley, | Rodunda, | 14.824 | 32.362 |
| Sep. 4 | —Brig Sea Breeze, | Rodunda, | 14.611 | 31.897 |
| 23 | —Brig C. Albert, | Rodunda, | 30.675 | 66 966 |
| Oct. 4 | —Brig Firm, | Rodunda, | 31.015 | 67.709 |
| 5 | —Steamer Sea Gull, | S. Carolina, | 25.494 | 55.664 |
| 6 | —Bark Commerce, | Swan Island, | 24.926 | 54.416 |
| | | | 27.546 | 60.135 |
| 12 | —Schr. Mary E. Banks, | Mexican, | | 50.342 |
| | | | | 74.467 |
| 19 | —Brig Isis, | | 24.504 | 53.496 |
| 21 | —Brig L. Daniels, | Rodunda, | 13.999 | 30.561 |
| Nov. 12 | —Mary E. Hinds, | Altavela, | 17.284 | 37.732 |
| 13 | —L. Staples, | Navassa, | 29.343 | 64.058 |
| 14 | —Brig Grace M. | Rodunda, | 13.031 | 28.448 |
| 15 | —Brig Senoreta, | Rodunda, | 19.236 | 41.994 |
| 17 | —Brig Romance, | Navassa, | 29.231 | 63.775 |
| 18 | —Brig Alice, | Navassa, | 30.701 | 67.023 |
| Dec. 2 | —Schooner Shiloh, | Navassa, | 29.111 | 63.552 |
| 24 | —Brig Waredale, | Navassa, | 29.454 | 64.301 |
| 29 | —Brig C. Albert, | Orchilla, | 22.135 | 55.214 |
| 29 | —Brig Harold, | Orchilla, | 24.010 | 52.416 |
| 29 | —Brig Marine, | Orchilla, | 23.994 | 52 381 |
| Jan. 18 | —Brig Romance, | Navassa, | 30.733 | 67.093 |
| 18 | —Brig Lizzie Daniels, | Navassa, | 30.011 | 65.517 |

JOHN G. DILLEHUNT,

1t STATE INSPECTOR

## Improved Breeds of Live Stock.

The undersigned, editor of the *Practical Farmer*, having been for many years engaged in breeding, importing and shipping LIVE STOCK to all sections of the United States, is now prepared to execute orders for his PURE WHITE CHESTER HOGS, of which he has shipped large numbers. Also, pure ESSEX and BERKSHIRE HOGS, ALDERNEY, AYRSHIRE, DEVON and SHORT HORN CATTLE. SOUTHDOWN, MERINO and COTSWOLD SHEEP. All the improved breeds of POULTRY—Chickens, Ducks, Turkeys, Geese, &c., all of which will be carefully selected and shipped by express or steamer as directed. Price lists furnished on application, and all communications promptly answered.

PASCHALL MORRIS,
Office of "Practical Farmer,"
jan-6t* 18 North 13th street, Philadelphia, Pa.

## SOMETHING FOR YOUNG AND OLD IN EVERY HOUSEHOLD.

### The Celebrated Patent Craig Microscope

Is an optical wonder, and combines instruction with amusement. Thousands have been sold, and it has received the highest recommendations from the press and public everywhere, for which see circulars. It distances and defies competition, being made on a different plan from all other microscopes, hence its simplicity, low price and high magnifying power. It is also the only microscope which requires no focal adjustment, therefore it can be readily used by children as well as scientific men. It is adapted to the use of physicans, entomologists, students, the family circle, and to every lover of the beautiful, wonderful and inexhaustible things of nature; for it opens up an endless unseen kingdom to the view of the astonished beholder, where the unassisted eye no beauty sees—thus leading us from nature up to nature's God. It magnifies ten thousand times, a power equal to other microscopes of many times its cost. Reveals the globules in milk, blood and other fluids, solids or salts of urine, animalcules and minerals in water, cancer cells, eels in vinegar, claws and hairs of insects, shape of the pollen of flowers, hundreds of eyes in the single eye of a fly, tubular structure of hair, dust of a butterfly's wing to be perfectly formed feathers, adulterations of food, and also the celebrated *trichina spiralis* or pork worm which has caused so much excitement in this country, and which was *first* discovered here with *this* microscope by Dr. R. C. Kendall, of Philadelphia. Price only $2.50.—Mailed post-paid, for $2.75. Address

W. F. DAILEY,
jan-3t No. 11 Light Street, Baltimore, Md.

### A Self-Acting Household Wonder,

FOR

## Washing & Cleansing Clothes,

And all articles of the coarsest or most delicate texture, without the least injury.

*NO LABOR! NO WEAR!! NO TEAR!!!*

### The Fountain Clothes Washer.

This simple invention renders the hitherto most unpleasant of all days, viz., the washing day, comparatively easy and agreeable.

"EUREKA"

## Self-Adjusting Clothes Wringer,

*The only reliable Wringing Machine in the world.*
*Steel Elliptic Springs.*

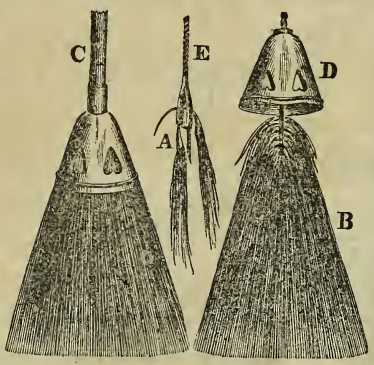
They say 'tis small and simple,
Yet it does the million please—
The Eureka ("I have found it,")
Can be worked with speed and ease.

The Eureka is not only a great labor saver, but also saves very much in the wear and tear of garments, clothes lasting as long again as when wrung without this machine, thereby paying for itself in every year's use.

COLLINS & HEATH,
*Stove, Furnace and Plumbing House,*
dec-1y 22 Light Street, Baltimore.

# MAKE YOUR OWN BROOMS.

SILVERS' PATENT BROOM.
*SAVES CARPETS, LABOR AND TIME.*




$100 to $300 PER MONTH PAID to AGENTS.
PRICES REDUCED FOR 1869.

The Broom-Corn in SILVERS' PATENT is so *elastic* that it is **Warranted** to wear twice as long as in the best tied broom; sweep with half the effort, and not wear the carpet one-fourth as fast, thus making it the best and cheapest.—It is adapted to city and country, as persons who don't want to make their own brooms can buy the Filled Loops, ready for use, as seen at B.

WANEKA, DUNN Co., WIS. Nov. 5th, 1868.
MESSRS. C. A. CLEGG & Co.: *Gentlemen*—About one year ago I received by mail the Brass Metalic parts of Silvers' Patent Broom, which are yet as good as new. It works admirably and to our entire satisfaction. Send price list and oblige yours, Very truly,
W. H. LANDON.

**Editorial Notices of the Press.**

The "*American Agriculturist*," ORANGE JUDD, Editor, says: "Silver' Patent Brooms have been tested by several months' use in our families, *and the writer has, without instruction, and with entire ease, prepared the brush, and filled the brooms to his perfect satisfaction.* The ladies pronounce them superior in elasticity and durability, and they are adopted as a family institution."

"For perfect elasticity and durability Silvers' Patent Broom has no superior."—*New York Independent.*

"The Silvers' Broom is a perfect sweeping instrument."—*Moore's Rural New-Yorker.*

[*From the American Institute "Farmer's Club."*]

"With Silvers' Patent, *a child ten years old can make a new broom in ten minutes.* It is used in our families and does good service."

The following letters, selected from the many received, show how popular the broom is, and how well it sells.

HAMBURG, BERKS Co., Pa., Jan. 7th, 1869.
MESSRS. C. A. CLEGG & Co.: *Dear Sirs*—Please send 54 more of the Silvers' Brooms. The 164 already received give the best satisfaction. Yours truly,
J. Z. SCHUMAN.

OFFICE OF S. H. ALEXANDER & SONS, Merchants, MOORFIELD, WEST Va., Sept. 3d, 1868.
MESSRS. C. A. CLEGG & Co.: *Gentlemen*—The Brooms sent August 27th, have arrived, and given such satisfaction, as to close out the stock. Please send us 6 dozen more at once.

The above firm on Dec. 4th, ordered 16 doz. additional.

MALTA, OHIO, Oct. 15th, 1868.
MESSRS. C. A. CLEGG & Co.:—I think you may depend on a big thing being done with your Broom in Vinton Co., O., the next one you would have giving me to canvass in. I have already sold over 1,200 Brooms in Athens Co.
Truly yours, G. A. WETHERELL.

Over 6000 of the "Silvers' Brooms" were sold last year in Virginia alone.

## TO FARMERS.--AGENTS WANTED.

The patent Brass Metallic parts, *which last a lifetime*, sent to Farmers (where we have no Agents) with full instructions for making their own Brooms, by mail, (prepaid,) for $1.25. Best seed 15 cents extra. $100 TO $200 PER MONTH PAID TO AGENTS, MALE OR FEMALE. PRICES REDUCED FOR 1869. CIRCULARS FREE. Address
mar-1t* C. A. CLEGG & Co., 38 Courtland St., N. Y.

# BONE

**Guaranteed Perfectly Pure.**

R. J. RUTH & CO.

mar-1y 16 Bowly's Wharf, Baltimore, Md.

## GARDEN TOOLS
AND
## Rakes, Hoe-Rakes and Sets of Tools

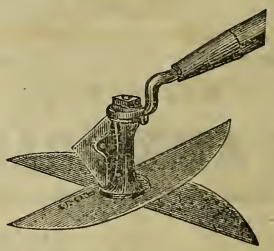
Manufactured by

**A. E. LYMAN & SON,**

*NORTHAMPTON, MASS.*

Also New York Depot, 30 BARCLAY STREET, N. Y.

**Labor Saving Machine for the Million.**



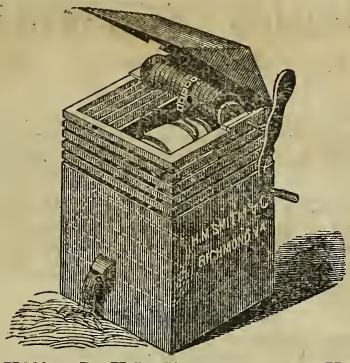
## LYMAN'S NEW PATENT
# Weed Annihilator.

By actual test the most practical, useful, cheap and reliable WEED DESTROYER known, combining strength, durability, great ease in working, doing the work of two or more tools of the ordinary old styles now in use, with much greater ease and rapidity, cutting from 3 to 10 or 12 inches in width, with Steel tempered Knives, adjustable.

E. WHITMAN & SONS, Agents,
mar-tf BALTIMORE, MD.

# Early Rose and Harrison POTATOES.

Early Rose, single ponnd, 75 cts; 4 lbs. $2.25. Post paid.
Harrison, $4.50 per barrel of 3 bushels.
Address,
J. D. RICHARDSON,
1t Buckeystown, Md.



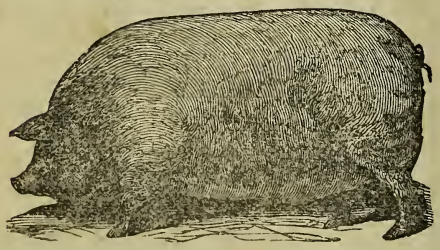
# SMITH'S PATENT WELL-FIXTURE.

This device for raising water was patented in 1859, and an important improvement patented in 1868.

Its superiority over all other well-fixtures is attested by FOUR FIRST PREMIUMS awarded it at Agricultural Fairs in 1868. At Staunton and Lexington this premium was awarded over Well-fixtures, which had taken the first premium at several Northern Fairs where we did not compete. No pumps of any kind can be sold in districts where our Well-fixture is properly known. Over SEVEN THOUSAND are in use, and the demand is constantly increasing. A liberal discount for large orders from dealers.

H. M. SMITH & CO., Manufacturers,
feb-3t Richmond, Va.

## PREMIUM CHESTER WHITE PIGS.



Bred and For Sale by

GEO. B. HICKMAN,
WEST CHESTER, Chester Co., PENN.
☞ *Send for a Circular and Price List.* feb-3t

## GIANT WAX BEANS, (Pole.)

Pods 6-9 inches long, pale waxy yellow, stringless and very fleshy and tender, even when full grown. of excellent quality, and remarkable productiveness. One of the most valuable varieties for amateur or market culture.

Price of Seed, (*by mail, postage paid.*) 25 cents per packet. EDWD. J. EVANS & CO.,
feb-3t York, Pa.

# VALUABLE FIELD SEEDS

NEW BRUNSWICK OATS.—A very handsome White Oats, with a large, plump, heavy grain, weighing (in favorable seasons) 45 pounds per bushel, and yielding abundantly—$1 per peck, $3 per bushel.

IMPROVED PENNSYLVANIA GOURD SEED CORN—Exceedingly productive and valuable—$1 per peck, $3 per bushel.

EARLY WHITE MARROW BEANS.—One of the most valuable varieties for field culture, $2 per peck, $7 per bushel.

## POTATOES.

EARLY GOODRICH—Very valuable for early market culture, $2 per bushel, $5 per barrel.

HARISON—The best late market Potato; enormously productive—$2 50 per bushel, $7 per barrel.

EARLY ROSE—Exceedingly early and of superior quality; of the highest promise—$5 per peck, $15 per bushel.

VANDERVEER'S SEEDLING—Large and very productive; new—$1.50 per peck, $5 per bushel.

Also a full assortment of Fresh Garden Seeds, including all the most valuable Novelties.

EDWD. J. EVANS & CO.
feb-3t York, Pa.

## BOWER'S
# COMPLETE MANURE,

MANUFACTURED BY

**HENRY BOWER, Chemist,**

PHILADELPHIA.

MADE FROM

Super-Phosphate of Lime, Ammonia and Potash.

WARRANTED FREE FROM ADULTERATION.

This Manure contains all the elements to produce large crops of all kinds, and is highly recommended by all who used it, also by distinguished chemists who have, by analysis, tested its qualities.

*Packed in Bags of* 200 *lbs. each.*

And by dealers generally throughout the country.

**DIXON, SHARPLESS & CO.,**

AGENTS,

**39 South Water & 40 South Delaware Avenue,**

PHILADELPHIA.

FOR SALE BY

**WILLIAM REYNOLDS,**

**79 SOUTH STREET, BALTIMORE, MD.**

And by dealers generally throughout the country. For information, address Henry Bower, Philadelphia. feb-1y

☞ All communications for the Maryland Farmer, will be addressed to S. S. MILLS & CO., No. 24 S. Calvert Street, Baltimore, Md.


# E. FRANK COE'S

## AMMONIATED

# SUPER-PHOSPHATE.

## SUPERIORITY GUARANTEED.

Having been appointed agents for the State of Maryland of this valuable fertilizer, we are prepared to furnish it in quantities to suit.

**PRICE $55 PER TON.**

**JOHN MERRYMAN & CO.**

Office, 69 West Fayette Street, Baltimore, Md.

PERUVIAN GUANO delivered direct from the Agent's Warehouse.

DISSOLVED BONES and other articles of known value.

**JOHN MERRYMAN & CO.**

# ANDREW COE'S SUPER-PHOSPHATE OF LIME,

**A Standard Manure for all Field and Garden Crops. It matures the Crop much earlier, and greatly increases the yield.**

:o:

## Manufactured by E. WHITMAN & SONS,

## BALTIMORE, MD.

:o:

Lands exhausted by long cultivation are made productive by the use of this Super-Phosphate. It supplies to the soil those substances that are taken out by cropping. It is in fact PLANT FOOD, and when it is used, the land continues to improve each year, and to require a less quantity to produce the same amount of results: and the GRAIN or VEGETABLES or FRUIT produced are of superior quality. When used on pastures, the cattle will feed where it is applied in preference. The milk of cows that feed upon this grass is much richer.

It gives WHEAT a firmer stalk, so that it is not liable to lodge before ripening; produces a large head and plump kernel, and is rarely affected by RUST or MIDGE. RYE, BARLEY or OATS are equally benefited.

It gives CORN and PEAS a dark green color, and a vigorous growth, and causes them to ripen a least *ten days earlier*.

Its effect on POTATOES is especially marked in the increased yield, and as a *preventive of rot*.

It quickens the growth of TURNIPS, *keeps away the fly*, and the increase of yield is remarkable.—The same is true with CARROTS, BEETS, and other root crops.

It keeps away the maggots from ONIONS, and has produced a yield as high as 800 bushels per acre.

To TOBACCO the Phosphate gives a vigorous growth, a large well developed leaf, and protects it from the worm.

It gives to COTTON a rapid growth and increased fruitage, the bolls continuing to come forward and ripen until destroyed by the frost.

It improves the quality of the fruit of GRAPE VINES and FRUIT TREES; also of STRAWBERRIES and other horticultural fruits.

Its effect upon FLOWERS and upon LAWNS surpass that of any other fertilizer.

## General Directions for Use.

The quantity of Super-Phosphate recommended in the following Directions to be used, may be varied according to circumstances and the condition of the land to be manured. The suggestions here given are those which may be followed to best advantage, though the application of less quantities will produce proportionate results.

### For Top-Dressing Grass Land.

From 200 to 300 pounds per acre on mowing land, should be applied early in the Spring. It can also be applied to advantage just after mowing, or in the autumn. The application of 200 pounds per acre to old pasture land will be found highly beneficial. It should be applied just before or after a rain, or when the ground is moist.

### For Wheat, Rye, Oats, Barley, Buckwheat and Millet.

From 200 to 300 pounds per acre. After the land is ploughed and harrowed apply the Super Phosphate, and then sow the grain, etc., and harrow all in together, or by the drill. It can be applied when the grain is two or three inches high with decided benefit.

### For Cotton, Corn and Potatoes.

Apply half a handful, or two-thirds of a gill, to each hill, thoroughly mixing it with the soil, then drop the seed. Its effects are most favorable.

### For Beans and Peas.

Apply half a handful to each hill. If sown in rows to be used in the same proportion, mixing it with the soil.

### For Turnips, Beets, Carrots, Onions, &c.

Apply 200 to 300 pounds per acre, with the seed; this quantity will give an excellent crop. This application at the time of sowing will produce the clearest and sweetest turnips. The sowing should be done just before a rain, if possible.

### For Squashes, Melons, Cucumbers, Cabbages, and Tomatoes.

Apply a handful to a hill, thoroughly mixing it with the soil, then drop the seed. This facilitates the growth so that the fruit will come to maturity in the warm season, when it is most desirable.—Treated in this manner cabbage have been obtained four times larger than those without the Phosphate.

### For Strawberries.

Apply four quarts to a square rod, broadcast, early in the Spring, with a good dressing of leaf mould, which will keep the ground *cool* and *moist*, and ensure a good crop.

### For Fruit Trees, Grape Vines, Raspberries, Currants, &c.

It will be found to be an invaluable and lasting manure. Loosen the earth well in the Spring with

a garden fork, then apply the Phosphate liberally, and rake it in, which will give a vigorous and healthy growth, ripening the woody early, causing it to produce a large amount of fruit buds and luxuriant growth of fruit, also improving the quality.

### For Asparagus.

Apply eight quarts to the square rod, with about eight quarts of salt, at the time of digging over the beds in the Spring; to be well raked in. In about ten day after apply eight quarts more of salt, as a top-dressing.

---

ANALYTICAL LABORATORY,
59 S. Gay st., Baltimore,
*January 7th*, 1868.

*Gentlemen:*—In reply to your letter of this date, I have to state that I have known Mr. Coe's preparation for a number of years. Before the war, I was employed to examine them for the State Agricultural Chemist, the object being to determine whether they were kept up to standard. They stood the test admirably, being remarkable for their uniformity from year to year. A statement of two of these analyses was published in Mr. P. T. Tyson's first report.

Of late years, I have made numerous analyses of his Super-Phosphate, and can say, from actual results that it has been very decidedly improved, being richer in phosphoric acid, both soluble and insoluble.

Mr. Coe has made arrangements with me to inspect his fertilizer. I sample every new lot which is made at his factory, which is always open to me. I also analyse, from time to time, the materials which he uses, so that he has scientific guidance in the mixtures. From actual observation from time to time on the premises, I am able to say that the mixture is faithfully and honestly made, according to the formula. The product as my analyses will show, is uniform.

Very respectfully, your obd't serv't.
A. SNOWDEN PIGGOTT, M. D.,
*Analytical and Consulting Chemist.*

---

REPORT OF ANALYSIS OF SAMPLE OF ANDREW COE'S SUPER-PHOSPHATE OF LIME, TAKEN BY MYSELF FROM BAGS IN THE WAREHOUSE.

| | |
|---|---|
| Moisture | 18 36 |
| Organic matter | 32.13 |
| (Capable of generating Ammonia.....3.33) | |
| Soluble Phosphoric Acid | 6.19 |
| (equivalent to Bone Phosphate of Lime—Dissolved...13 51) | |
| Phosphoric Acid | 9.04 |
| (equivalent to Bone Phos. of Lime.....19.73) | |
| Alkaline Salts | 8.79 |
| Lime, Sulphuric Acid, &c., not estimated | 25.49 |
| | 100.00 |

The above analysis shows this to be a well made Super-Phosphate. Its ammonia will give the crop a vigorous start; the soluble phosphoric acid will strengthen the young plant, while the residual phosphoric acid will furnish a supply available for the whole period of growth; the alkaline salts furnish food immediately needful, while at the same time they promote the absorption of ammonia.

A. SNOWDEN PIGGOTT, M. D.,
*Analytical and Consulting Chemist.*
ANALYTICAL LABORATORY, 59 S. Gay street,
Baltimore.

---

LETTER FROM DR. THOMAS ANDERSON,
*Professor of Chemistry in the University of Glasgow, and Chemist to the Highland and Agricultural Society of Scotland.*

"I have analyzed Andrew Coe's Super-Phosphate of Lime, which is clearly a well and carefully manufactured Manure, made from excellent materials and *thoroughly genuine.*"

---

LETTER FROM HENRY CROFT,
*Professor of Chemistry in University College, Toronto, and Chemist to the Board of Agriculture of Upper Canada. In reporting an analysis which he made of Andrew Coe's Super-Phosphate of Lime, says:*

This artificial manure, which is now manufactured in Baltimore, is coming into very general use as a substitute for Guano, and there can be but little doubt that it *will entirely supersede that manure.*

Several so-called Super-Phosphates which have come under my notice, contained little or no soluble Phosphate, owing, probably, to an error in its manufacture, while Coe's Super-Phosphate contains a large proportion.

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# TESTIMONIALS.

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LOUDON CO., VA., Feb. 16, 1869.

*Gentlemen*—I purchased some of Andrew Coe's Phosphate of you last spring, which I used on my Corn, (in the hill, about fifty-six pounds to the acre.) I used it by the side of a well-known fertilizer made in Baltimore, at much higher cost, at the same rate, with good effect. I could tell no difference. I think both paid, although the season was very dry. I want some more this spring; let me know if I can get it, and at what price.

Respectfully, yours,
G. W. F. HUMMER.

---

LEESBURG, VA., Feb. 19, 1869.

*Dear Sirs*—I purchased of you last spring one and a quarter tons of Andrew Coe's Superphosphate of Lime, which was applied in the hill to about (20) twenty acres of Corn land, or about (125 lbs.) one hundred and twenty-five pounds per acre. It produced about (7) seven barrels of good sound corn to the acre. There was no soft or inferior corn among it, where I am satisfied there would not have been over three barrels of inferior quality if it had not been used.

The advantages from its use are, that it prevents the "gimlet" worm from interfering with the early growth of the corn; forces it into blade early in the season; produces a fine stalk; ripens the corn much earlier, and makes it of a much sounder quality; and from its effects as exhibited in my field, at least double the quantity. But for the extreme drought of last summer, the yield would have been much larger. Its use can not be too strongly urged upon our farmers, particularly in its prevention of the injurious effects of worms and insects. I also used two tons on wheat last fall, which is looking very finely. Yours respectfully,
HENRY HEATON.

---

HAMPTON, BALTO. CO., MD., Feb. 13, 1869.

I tried Andrew Coe's Phosphate on my wheat

crop of last year at the rate of 200 to 250 pounds to the acre. There was a marked difference in favor of the land covered by the Phosphate, both as to the quality and quantity of the grain.

Yours, truly,
CHAS. RIDGELY of H.

---

ANNE ARUNDEL Co., MD., Jan. 18, 1869.

*Dear Sir*—Enclosed please find order for ten tons of your Phosphate, which I propose to apply to my Corn ground the coming spring, as also on Potatoes and Garden Vegetables generally. Having used your Phosphate for the past three years, I can unqualifiedly testify to its very superior quality, excelling all other fertilizers I have used, which embrace most of the standard fertilizers in the market. I can therefore confidently recommend it to the farming community.

Yours,
BASIL S. BENSON.

---

ELLICOTT CITY, HOWARD Co., MD.,
January 28, 1869.

*Dear Sirs*—I have used Andrew Coe's Phosphate upon Corn and Potatoes with great success. I intend using it again this Spring upon the same crops, and also upon Oats.

Yours, respectfully,
S. V. GEORGE, JR.

---

NEAR MITCHELLVILLE, PRINCE GEORGE'S Co., MD.,
January 28, 1869.

*Gentlemen*:—As to the effects of Andrew Coe's Phosphate on Tobacco I have to say that I used it last year at the rate of 200 lbs. to the acre on three places in my field, and was much gratified at the result. The spots where it was used matured earlier than others alongside manured with barn-yard manure. I also used it with good effect as a top-dressing for Tobacco beds last Spring.

Yours, respectfully,
BEALE D. MULLIKIN.

---

MEDLEY'S NECK, ST. MARYS Co., MD.,
January 25, 1869.

*Gentlemen*:—I used Andrew Coe's Super-Phosphate of Lime on my Corn crop last spring at the rate of 75 lbs. to the acre in the hill, and it affords me pleasure to state that the result was perfectly satisfactory. My corn looked green and healthy during the whole season, the ear was well filled and the yield large, and I conscientiously believe it to be the best fertilizer in use in this section. I shall want more for my corn and tobacco next spring.

Yours, respectfully,
WM. G. GOUGH.

---

LEONARDTOWN, ST. MARY'S Co., MD.,
January 25th, 1869.

*Gentlemen*:—Of the effects of Andrew Coe's Phosphate, it gives me pleasure to say I used it on Irish Potatoes, alongside of well rotted barn-yard manure, and found the greatest difference in favor of the Phosphate. The Potatoes were as large again and a great many more in the hill. I also used it on my Corn and Tobacco with entire satisfaction. I used it on my fall Wheat and at present see no difference in that and Peruvian Guano and Bone. I regard it a valuable fertilizer.

Very respectfully,
G. A. SIMMS.

---

NEWBURG, CHARLES Co., MD., Feb. 2, 1869.

*Gents*:—I used one ton Andrew Coe's Phosphate on about seven acres of Tobacco land, alongside of another manufactured fertilizer, higher in cost, in equal quantities. I honestly regard Andrew Coe's Phosphate as equal to any, if not superior, to most manufactured fertilizers. I shall use it again this season.

Yours, very respectfully,
GEORGE B. LANCASTER.

---

GRAHAMS' FORGE, WYTHE Co., VA.,
February 2, 1869.

*Gents*:—I applied Andrew Coe's Phosphate to Corn, Potatoes, Tomatoes, Cabbage and several other vegetables. It ripened Corn early, and the yield of Potatoes where the Phosphate was applied was as two to one where none was applied. Mr. Graham applied at seeding last fall the Phosphate side by side with the Peruvian Guano bought of you. The coming harvest will decide the merits as compared with it. I hope it may prove of value, and if it does you will have a good demand from this county.

Yours, truly,
E. THOMAS OSBORN.

---

STAUNTON, AUGUSTA Co., VA., Feb. 2, 1869.

*Gentlemen*:—I bought one ton of Andrew Coe's Phosphate last fall, and sowed it upon a portion of my Wheat, 150 pounds to the acre. I used four other kinds of Philadelphia, Baltimore and New York manufactory on same land and like proportions. Andrew Coe's is far ahead of all, and if it maintains its advantages, which I have no doubt it will, I shall use no other this fall.

A. W. HARMAN.

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BELLEFONTE, NEAR STAUNTON, VA.,
February 2, 1869.

*Gents*:—I got one ton of Andrew Coe's Phosphate last fall and applied it on my Wheat at the rate of 150 pounds to the acre, alongside of three other standard manures at the same rate. Andrew Coe's took the best start, and has maintained it steadily. From present appearances I have no doubt it is superior to either of the others. If it proves best, as I now think it will, I shall use it exclusively next fall.

Respectfully,
JOHN A. HARMAN.

---

JERUSALEM MILLS P. O., HARFORD Co., MD.,
January 13th, 1869.

*Gentlemen*:—I have the pleasure to state that the results from the use of ANDREW COE'S SUPER-PHOSPHATE OF LIME procured the past season have been such as permit me most cheerfully to repeat the recommendation given on a previous occasion of its being a most valuable fertilizer.

Very truly yours,
JNO. CARROLL WALSH.

---

SALUDA, MIDDLESEX Co., VA., Jan. 20, 1869.

*Gents*—I used Andrew Coe's Phosphate last spring as a top-dressing for Clover and Orchard Grass. Its effect upon each was fully equal to a heavy dressing of good stable manure. It was also tried by the side of the best wood ashes, at the rate of 30 bushels of the ashes and 125 lbs. of the Phosphate to the acre. The effect was the same, and up to this time there is no difference in the appearance of the land. It was also used with Oats; the growth was very luxuriant, and the young Clover marks well the line of the Phosphate. It was also used on

Turnips by the side of Peruvian Guano, at the same rate per acre. Both lots were very large; but it was readily seen that those seeded on the Phosphate were the largest. It was also tried on Corn and Vegetables in my garden by the side of Peruvian Guano. From all these experiments I became fully satisfied that it was preferable to Peruvian Guano, and therefore used it almost entirely on my Wheat. Only used a small parcel of guano in small lots to keep up the experiment. The Wheat looks well, and I still prefer the Phosphate. My neighbors fully endorse me in the above, and I may add that a great many farmers in this county have used this Phosphate the last fall, and all speak well of it.

Respectfully,
P. T. WOODWARD, County Clerk.

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WASHINGTON, N. C., Jan. 3d, 1868.

*Gents:*—I tried Andrew Coe's Super-Phosphate to a limited extent the last Spring, receiving only one-half ton. I put on one acre 150 pounds; on another 200 pounds; another 250 pounds. Each acre showed the effect of the manure, and showed it in proportion of the amount applied. I think it superior to any manipulated manure I have ever applied to my land. I think it so beneficial to the crop (Cotton) that I shall order several tons for the crop of this year. The season has been a very unfavorable one for crops, but where I put Coe's Phosphate, though on inferior land, I realized the best crop.

Very respectfully,
WM. A. BLOUNT, JR.

---

DUNNSVILLE, ESSEX CO., VA., Jan. 15, 1869.

*Gents:*—Andrew Coe's Phosphate gave us satisfaction on our Corn. We used a small quantity on Wheat last fall, but can't speak yet of the result. We used it on Irish Potatoes very satisfactory, also Timothy and Clover does well with a top-dressing of 125 pounds per acre. We regard it as a good fertilizer as far as we have tried it.

Very respectfully,
SAUNDERS & CAMPBELL.

---

BIG LICK, ROANOKE CO., VA., Jan. 15, 1869.

*Gents:*—Nearly all the farmers with whom we have had a talk, and to whom we sold Andrew Coe's Phosphate, speak very highly of it. Several to whom we sold say they can see the difference as far as they can see the Wheat. One gentleman who used it on very poor land—the poorest he could find—says it is the finest looking wheat in the neighborhood. If it does as well as it now promises we can sell a large quantity the coming fall.

Very respectfully,
J. W. NEAL & CO.

---

ANNE ARUNDEL CO., MD., Jan. 13, 1869.

*Gentlemen:*—I used ANDREW COE'S PHOSPHATE on my Potatoes and Peas for the last three years, and it gives me pleasure to say that it acts first-rate on those crops. I also applied it last fall on my Wheat to test its merits on that, and so far I am very well satisfied with the result. I intend using a large quantity of it this spring.

Yours, respectfully,
SWEETZER LINTHICUM.

---

MONTERA, NORTHUMBERLAND COUNTY, VA.,
December 9th, 1868.

*Gents:*—This is to certify that I have tried fully for the past two years ANDREW COE'S PHOSPHATE on Turnips and Irish Potatoes with complete success, and prefer, it pound for pound, to No. 1 Peruvian Guano even at the same price. As evidence of my opinion of this Phosphate, I shall next spring deal largely in it for my early crop of Irish Potatoes. These are unvarnished facts from my experience for two successive years, and I take pleasure in announcing this Phosphate to my friends and to the public generally to be superior to any fertilizer I have ever tried on Turnips and Potatoes, having tried most all fertilizers now in use, and none can equal Andrew Coe's Phosphate in my opinion, so far as I have used it on the above named crops.

Yours, respectfully,
JAMES SMITH.

---

AMHERST CO., VA., September 19, 1868.

*Gentlemen:*—I used Andrew Coe's Phosphate on Wheat in the fall of '67, with results much more satisfactory than those obtained from the use of Peruvian Guano on land of the same quality. The Phosphate was used at the rate of two hundred pounds to the acre, and the guano in the same amount. The Wheat on which the Phosphate was used grew off well and was matured fully as soon as the guanoed crop. I consider the Phosphate not only superior to the guano for a growing crop, but decidedly more advantageous as a permanent fertilizer. I have purchased the same Phosphate for my next crop, and cheerfully recommend it to all Wheat growers.

J. G. PERRY.

---

MAGNOLIA, HARFORD CO., MD.,
August 24, 1868.

*Gentlemen:*—I would state my experience with Andrew Coe's Super-Phosphate of Lime. The two tons I bought last season I used in connection with a number of other kinds of fertilizers, and the result was that the wheat manured with it was longer in the straw and better grain than any to which the other kinds were applied. I can conscientiously recommend it to all who desire a first-class fertilizer.

Respectfully, yours,
C. F. SMITH,
Agent for General Cadwalader.

---

ANNE ARUNDEL CO., Aug. 8, 1868.

*Gentlemen:*—I have used Andrew Coe's Super-Phosphate of Lime on my corn crop for two successive years, and take great pleasure in testifying to its merits. My crop last year was better filled in the ear and heavier than I ever raised before. The soil was of inferior quality, and I could only attribute the success of the crop to the effects of the fertilizer. I have used it again this yeer and it promises equally good results. It is, in my opinion, the most popular and best manufactured fertilizer in use in this community.

Very truly yours,
E. J. HENKLE.

---

ANNE ARUNDEL, CO., MD.,
August 27, 1868.

*Gentlemen:*—I used about eight tons of Andrew Coe's Phosphate this spring on Corn and Potatoes. The result was very satisfactory, especially on Potatoes. They kept green during the severe drought and produced an excellent crop, whereas those of my neighbors who used a different article turned yellow. I consider Andrew Coe's Phosphate a superior one.

I intend using it on my wheat this fall. With confidence I recommend my friends to use it.

REZIN HAMMOND.

---

CROWNSVILLE, ANNE ARUNDEL CO., MD.
August 27, 1868.

*Gents:*—Respecting the merits of Andrew Coe's Phosphate purchased last spring, it affords me pleasure to say I tested it in various ways on Tobacco—broadcast at 100 pounds per acre in one portion of the field, and lightly in the hill on the other portion—also on cabbages in the hill, and in every instance it was highly satisfactory. I shall use it for wheat this fall, feeling satisfied that it is the best fertilizer I have ever used.

Respectfully,

ABSOLOM ANDERSON.

---

BALTIMORE, August 4, 1868.

*Dear Sir:*—I used on my wheat last fall your Super-Phosphate of Lime, and found it to do well. I most cheerfully recommend farmers to use it, as a first-rate fertilizer.

Very respectfully yours,

JESSE SLINGLUFF,
*Baltimore County, Md.*

---

BLACK FRIARS, CHARLES CO., MD.,
April 4, 1868.

*Gentlemen:*—I consider Andrew Coe's Phosphate the best fertilizer I have ever used on corn, tobacco and vegetables. I did not use it on wheat, as my drill was too much out of repair, but am satisfied it is equally good for wheat.

Yours, respectfully,

CHAS. A. F. SHAW.

---

ROCK HALL, CHARLES CO., MD.,
April 15, 1868.

*Gentlemen:*—I am satisfied that Andrew Coe's Super-Phosphate of Lime is a most valuable fertilizer for corn or tobacco.

Yours, respectfully,

I. A. LANCASTER.

---

ELBA, NEAR WASHINGTON CITY,
August 8, 1868.

*Sir:*—The Super-Phosphate manufactured by Andrew Coe, which I bought last fall of you, has worked like a charm as a fertilizer for wheat and clover, and as such may be safely used.

JOHN H. WHEELER.

---

SYCAMORE SPRINGS, MONTGOMERY CO., MD.,
August 3, 1868.

*Sir:*—Respecting the merits of Andrew Coe's Super-Phosphate, I have to say that the 12 tons I bought in the spring I used on corn, oats and potatoes at the rate of 160 to 200 pounds to the acre; the crops grew off finely until they were checked by the drought in July. Since the recent rains the corn and potatoes are rapidly improving. I consider the Super-Phosphate a valuable fertilizer, and shall use it again.

Respectfully yours,

O. H. P. CLARK.

---

ORANGE GROVE, HARFORD CO., MD.,
August 4, 1868.

*Gentlemen:*—I have used Andrew Coe's Super-Phosphate of Lime on Corn, Oats, Rye, Potatoes and Garden Vegetables, on all of which it acted like a charm. I also tried it on grass as a top-dresser, at the rate of 160 pounds per acre. The result was equally satisfactory, as this portion of the field produced two-thirds more of grass than the other where no fertilizer was used—the land being of the same quality. I have been buying the principal fertilizers offered in the Baltimore market for the last twelve years, and can say that Andrew Coe's is the best preparation I have used. I can recommend it with confidence to the farming community.

Respectfully,

DAVID A. EDIE.

---

STRAWBRIDGE P. O., YORK CO., PA.,
August 4, 1868.

*Gentlemen:*—We purchased small quantities of Andrew Coe's Phosphate to test its merits, and state that it comes up fully to its recommendation, and really did more than we anticipated. Some of us tried it alongside of other fertilizers and found it to excel in every case. We recommend it as a first rate fertilizer.

Respectfully, yours,

JOHN S. NORRIS, BENJAMIN ALMONEZ,
CHAS. GROVE, THOMAS MILLER,
JOSAH CATHART, JOHN WILEY,
JOS. W. BUTLER, J. T. PAYNE.

---

UPPER FALLS, MD., July 9, 1868.

*Dear Sirs:*—At your request, I would state that I have tried Andrew Coe's Phosphate, and it has given me due satisfaction.

I think it the best Phosphate I have ever used.

STEPHEN W. FALLS.

---

QUEENSTOWN, QUEEN ANN'S CO., MD.

*Dear Sir:*—The nine tons of Phosphate I bought of you I used on my wheat last fall, and I am so much pleased with the result that I shall purchase twenty tons next month. I used three other fertilizers, but I must say I give yours the preference, and I believe it to be the very best article in the market.

Yours, truly,

S. OGLE TILGHMAN.

---

BAYSIDE, TALBOT CO., MD., May 7, 1868.

*Dear Sir:*—Please send me a few bags of Coe's Fertilizer, which I want to apply to my corn this spring. I am induced to try some after seeing the effect produced on the wheat crop of my brother, James M. Seth. He used some last fall on his wheat, and where he applied it the wheat looks very promising. He has used different kinds for the last ten years, but none has made the same improvement that Coe's has. I shall use it on my wheat next fall.

Respectfully, yours,

ALEX. H. SETH.

---

GREENSBOROUGH, MD., Aug. 17, 1868.

*Gentlemen:*—I have used Andrew Coe's Super-Phosphate of Lime on my present crop of corn, and am fully satisfied with the prospect. I applied it by the side of other well known and approved fertilizers that have been used extensively in this county, and am prepared to say that it has my preference decidedly. I shall use it on my wheat this fall.

RISDON PLUMMER.

---

GREENSBOROUGH, MD., August 17, 1868.

*Dear Sirs:*—With regard to your inquiry concerning the action of Andrew Coe's Super-Phosphate, I would reply that I tried it last spring on

corn alongside of another well known and good fertilizer, which I found it to excel by far. I consider it to be a valuable fertilizer.

JAMES MASSEY.

---

GREENSBOROUGH, MD., August 17, 1868.

*Dear Sirs :*—In reply to your inquiry with regard to Andrew Coe's Super-Phosphate, I would state that I applied it to Potatoes and other vegetables this season, and am well pleased with the result, and expect to use it again next season. It exceeds any fertilizer that I tried by the side of it.

F. H. HARPER.

---

GREENSBOROUGH, MD., August 8, 1868.

*Dear Sirs :*—We have used Andrew Coe's Super-Phosphate on corn this season, and are very much pleased with its use, and believe it to be a No. 1 fertilizer.

Very truly, yours,

JOHN F. DAWSON,
WILLIAM J. CLARK,
JOSEPH B. ORREL.

---

LANESVILLE, KING WILLIAM COUNTY, VA.
August 25th, 1868.

*Gentlemen :*—Last fall I tried four different kinds of fertilizers—the Peruvian and——Guanos, Bone Dust and Andrew Coe's Phosphate. I applied 200 pounds of each to the acre with my wheat on an average quality of land. From Andrew Coe's Phosphate I received an excellent stand of clover and a fine growth of straw, but little wheat. I think this was injured by the heavy rains we had just before maturing. From Andrew Coe's Phosphate I received the greatest profit. Respectfully,

JOHN A. ROBBINS.

---

CHARLOTTESVILLE, VA., August 10, 1868.

*Gentlmen :*—I can cheerfully say I am much pleased so far with Andrew Coe's Phosphate on my corn. Where I used it there is a difference in size of from two to three feet, and in maturity of more than a week in favor of this Phosphate. Respectfully,

ED. A. WELCH.

---

MIDWAY, Augusta County, Va.
August 19, 1868.

*Gentlemen :*—I used Andrew Coe's Phosphate last spring on Corn, Wheat, Potatoes, Grass, Cabbage and Vines, and in every instance it acted as well as any fertilizer could do. I think as long as the Phosphate is kept up to the present standard of purity I shall use no more Peruvian Guano.

Respectfully,

JOHN C. DICKINSON.

---

HUNTLEY, MONTREAL, NELSON CO., VA.,
August 29 1868.

*Dear Sirs :*—The Andrew Coe's Phosphate promises well on my Tobacco. I tried it side by side with Peruvian Guano in equal quantities, and so far I can see no difference in it. I will get two or three tons of it for my wheat.

Respectfully,

WILLIAM GORDON.

---

"WYE HEIGHTS," NEAR EASTON, TALBOT CO., MD.,
December 4th, 1867.

*Dear Sir*—Your favor of the 26th November was duly received, and I cheerfully comply with the request therein contained, to wit: To give you my opinion of the efficacy of your Super-Phosphate of Lime.

I was induced to try your Super-Phosphate through your agent in this county, Mr. Dodson, and applied it broadsast on Corn at the time of planting, about 300 pounds to the acre, and found its results far better than those arising from two other kinds of Super-Phosphates applied at the same time and in the same manner. I used it also this Fall on Wheat, both from the drill on fallow and broadcast on Corn ground, and up to the present time its results are distinctly marked.

I propose using it on Oats next Spring, and also for garden vegetables, as well as a top-dressing for grass.

Those of my friends who have tried it on my representations speak very highly of it.

Yours, respectfully,

DAVID C. TRIMBLE.

---

FREDERICK, MD., Nov. 27th, 1867.

*Dear Sir*—In reply to your inquiries in regard to your Phosphate, we would say we sold about 60 tons last spring, which gave general satisfaction on the Corn, and we have received the most extravagant accounts of its effects on the Potato and vegetable crops.

This fall we sold considerably over one hundred tons. From all accounts, received almost daily from the farmers and market gardeners, it will be the leading article of our county. Enclosed pleased find order for 100 tons.

Respectfully yours,

J. TYSON & SON.

---

MOUNT AIRY, B. & O. R. R., CARROLL CO., MD.
November 27th, 1867.

*Dear Sir*—In answer to your inquiry respecting the merits of your Super-Phosphate, I have to say that I used it on Corn and Potatoes, and it acted equal to any Fertilizer that I have ever used. I have sold your Phosphate to some seventy or eighty farmers; a large majourity of them speak highly of it.

I think there will be a large demand for it for spring crops. Respectfully yours,

HENRY BUSSARD.

P. S.—I made 10 barrels Corn per acre on the lot where I applied your Phosphate, (which lot I showed you when you called to see me,) which was not planted until the 20th of May.

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ST. MICHAEL'S, MD., December 19th, 1867.

*Dear Sir*—I purchased six bags of your Supe-Phosphate of Lime last spring from H. C. Dodson, and applied it to my corn last spring—a tablespoonful to the hill. The corn grew off from the start and matured in an increased and abundant crop, far beyond that where I applied *good compost.* I applied it to my wheat last fall. The wheat is flourishing and gives promise of a good yield.

I regard yours as one of the best Fertilizers I have ever tried, and shall use it again the coming spring upon my corn. Yours, respectfully, &c.,

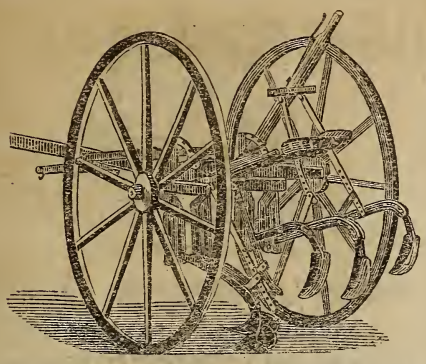
JAMES DAWSON.

---

BLADENSBURG, December 26th, 1867.

*Gentlemen*—With Coe's Super-Phosphate of Lime I raised last spring an excellent crop of Oats. I regard it as an invaluable Fertilizer.

A. C. STEPHENS.



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# INTERESTING TO LADIES.

The following extracts are from the testimony, taken under oath, in a recent case pending before the United States Patent Office, upon the actual merits of the

## GROVER & BAKER SEWING MACHINE,

and its relative merits as compared with other machimes:

Mrs. Dr. McCready, says:

"I have used, for nine years, a GROVER & BAKER MACHINE, and upon it I have done all kinds of family sewing for the house, for my children and husband, besides a great deal of fancy work, as braiding, quilting, and embroidering. During all that time my machine has never needed repair, except when I had the tension altered, and it is as good now as it was the firstday I bought it."

* * * * * * *

"I am acquainted with the work of all the principal machines, including Wheeler & Wilson's, Finkle & Lyon's, Wilcox & Gibb's, Ladd & Webster's, the Florence machines, and Sloat's machines, besides a number of ten-dollar ones; and I prefer the Grover & Baker to them all, because I consider the stitch more elastic. I have work now in the house that was doue nine years ago, which is still good; and I have never found any of my friends who have used the other machines able to say the same thing

Mrs. Dr. Whiting gives the following reasons for the superiority of the Grover & Baker machines over all others:

"The elasticity of the stitch, and ripping when it is required; and also the stitch fastening itself, as you leave off; and also, the machine may be used for embroidering purposes; and therein consists the superiority over other machines.

"The stitch will not break when stretched, as the others do, and neither does it draw the work.

"I find this stitch will wear as long as the garments do—outwear the garments, in fact.

"I can use it from the thickest woolen cloth to Nansook muslin."

Mrs. Alice B. Whipple, wife of Rev. Mr. Whipple, Secretary of the American Missionary Association, testifies:

*Q.* As the result of your observation and experience, what machine do you think best as a general family instrument?

*A.* The Grover & Baker, decidedly.

*Q.* State the reasons, such of them as occur to you, for this opinion.

*A.* I think the stitch is a stronger stitch than that of any other machine I have used, and it seems to me much more simple in its management than other machines; one great advantage is the ease with which the seam is ripped when necessary to do so; and I think that the work, by an experienced person, on a Grover & Baker machine, is better than the work by such person on any other machine; it requires more skill to work other machines than the Grover & Baker.

Mrs. General Buel says she prefers the Grover & Baker machine over all others.

"On account of its durability of work, elasticity of stitch and strength of stitch. It never rips.

"It is preferred over all others; it is very easy in its movements, and very easily adjusted, and very simple in its construction.

"We can accomplish more in one week, by this sewing machine, than we can in a month by hand-sewing."

Mrs. Dr. Watts, says:

"I have had several years' experience with a Grover & Baker machine, which has given me great satisfaction. Its chief merit is that it makes a strong elastic stitch; it is very easily kept in order, and worked without much fatigue, which I think is a very great recommendation. I am not very familiar with any other machine, except a Wheeler & Wilson, which I have had. I think the Grover and Baker machine is more easily managed, and less liable to get out of order. I prefer the Grover & Baker, decidedly."

Mrs. A. B. Spooner, says:

"I answer conscientiously, I believe it to be the best, all things considered, of any that I have known.

"In the first place, it is very simple and easily learned; the sewing from the ordinary spool is a great advantage; the stitch is entirely reliable. It does ordinary work beautifully, and the embroidery stitch. It is not liable to get out of order. It operates very easily. I suppose I can sum it all up by saying it is a perfect machine.

"I have had occasion to compare the work with that of other machines. The result was always favorable to the Grover & Baker machine."

Mrs. Dr. Andrews, testifies:

"I prefer it to all other machines I have known anything about, for the ease and simplicity with which it operates and is managed; for the perfect elasticity of the stitch; the ease with which the work can be ripped, if desired, and still retain its strength when the thread is cut, or accidentally broken; its adaptation to different kinds of work, from fine to coarse, without change of needle or tension."

Mrs. Maria J. Keane, of the house of Natalie, Tilman & Co., says:

"Our customers all prefer the Grover & Baker machine, for durability and beauty of stitch."

Mrs. Jennie C. Croly, ("Jenny June,") says:

"I prefer it to any machine. I like the Grover & Baker machine in the first place, because if I had any other I should still want a Grover & Baker; and, having a Grover & Baker, it answers the purpose of all the rest. It does a greater variety of work, and it is easier to learn than any other. I like the stitch because of its beauty and strength and because, although it can be taken out, it don't rip, not, even by cutting every other stitch."

The foregoing testimony establishes beyond question:

1. The great simplicity and ease of management of the Grover & Baker machines.
2. That they are not liable to get out of repair.
3. That a greater variety of work can be done with them than with other machines.
4. That the elasticity of the stitch causes the work to last longer, look neater, and wear better, than work done on other machines.
5. That the facility with which any part of the seam can be removed when desired is a great advantage.
6. That the seam will retain its strength even when cut or broken at intervals.
7. That, besides doing all varieties of work done by other sewing machines, these machines execute beautiful embroidery.

Over one hundred other witnesses in the case above referred to testified to the superiority of the Grover & Baker machines in the points named in substantially the same language, and thousands of letters have been received from parts of the world, stating all the same facts.

☞ Send for a Circular.

OFFICE AND SALES ROOMS,

jan-ly

181 Baltimore Street,

BALTIMORE.

# TO THE FARMERS & PLANTERS

## OF THE

# SOUTHERN STATES!

# "EXCELSIOR."

Containing Ammonia, - - - - - - 6 per cent.
Super-Phosphate equivalent to
Bone Phosphate of Lime, - - 57 "
Potash of Soda, - - - - - - 5 "

Composed of 700 pounds of No. 1 Peruvian Guano, and 1,300 pounds of *Soluble* Phosphate of lime (bones dissolved in acid,) potash and soda, forming the most concentrated, universal and durable fertilizer ever offered to the farmer and planter—combining all the stimulating properties of Peruvian Guano, and the ever durable fertilizing properties of Ground Bones—supplying an abundance of Ammonia for any crop, and all soils, and in a perfectly fixed condition—not volatile and passing off with the first crop, as with Peruvian and other ammoniacal guanoes, but stimulating the crop to which it is applied, and all succeeding ones, giving to poor, worn out and unproductive soils, new life and vigor, making them, in this respect, equal to the most highly cultivated lands, upon which much time and money have been expended.

We introduced Excelsior in 1858, and challenge the manufacturers and venders of fertilizers, natural or artificial Guano, to show results so invariably successful as can be shown from its use. One of our firm superintends in person every minutia of its manufacture. We therefore warrant every bag uniform, and to contain by analysis, the standard of fertilizing properties, giving that protection to the farmer which he does not have in the purchase of any other Guano or Fertilizer sold.

Excelsior is in fine dry powder, prepared expressly for drilling, and can be applied in any quantity per acre, however small; and it is the opinion of the most prominent and calculating Planters, after eight years experience in testing it side by side with other popular fertilizers, that an application of 100 pounds per acre of Excelsior is equal to from 200 to 300 pounds of any other fertilizer or guano offered for sale, therefore is fully 100 to 200 per cent. cheaper.

We are daily in receipt, from every quarter, of flattering encomiums from those who used it last spring and summer on cotton, corn and tobacco, and last fall on wheat, and had we the space could publish hundreds of testimonials, many from gentlemen who have continued its use year after year since its introduction.

The best evidence we can offer of the value of our Excelsior as acrop grower and fertilizer, is the fact of its being imitated and counterfeited in this and other cities. Some unprincipled manufacturers have actually used our trade mark for the purpose of palming off their worthless compounds.

EVERY BAG BRANDED AS FOLLOWS:


Farmers should see that every bag bears in *red letters* the name of J. J. TURNER & CO. under the inspection mark, and thus secure the genuine article,

**J. J. TURNER & CO.,**

**42 Pratt Street, Baltimore, Md.**

# IMPORTANT TO FARMERS!

—————:o:—————

# SUPER PHOSPHATES.

## THE MARYLAND FERTILIZING AND MANUFACTURING CO.

Incorporated January, 1867.

—————: o :—————

**DIRECTORS.**

WM. G. HARRISON,
LAWRENCE SANGSTON,
ROBERT TURNER,
WILLIAM NUMSEN,
RICHARD J. BAKER,
WILLIAM TREGO.

WILLIAM TREGO,
*Manufacturing Chemist.*

LAWRENCE SANGSTON,
*President.*

—————:o:—————

This Company, incorporated by the Legislature of Maryland for the Manufacture and Sale of Fertilizers, are now prepared to furnish the Agricultural community with their products.

Deriving their supply of material from the richest of the recently discovered deposits of Bone Phosphates in South Carolina, they have established, and will inflexibly maintain, a higher standard of Fertilizing value than any similar production hitherto on the market.

While the material they use contains 60 per cent. of Bone Phosphate of Lime, it is guaranteed to contain a larger per centage of SOLUBLE PHOSPHATE than any heretofore used.

## FINE GROUND BONE PHOSPHATES,

**Price $30 Per Ton, in Bags.**

Containing, by the average of the Analyses of Professors Piggott, Leibig and Popplein, 60.20 per cent. of Bone Phosphate of Lime.

The unusual per centage of *Soluble* Phosphate will make this form very desirable to Farmers who prefer to use it in its natural state, or to manipulate for themselves.

## ALKALINE SUPER PHOSPHATE, price $50 per ton, in Bags.

This preparation has special reference to the growth and development of the Seed or Grain, and is intended for soils that produce large crops of Straw, and small crops of Grain.

## AMMONIATED SUPER PHOSHATE,

**PRICE $55 PER TON, IN BAGS.**

Adapted to lands that require a full development of the crop, both Straw and Grain.

## TOBACCO FOOD, price $60 per ton, in Bags.

A speciality for the Tobacco Plant, rich in Ammonia, Potash and Nitrates, but adapted to all Plants that require a prompt and vigorous growth.

The Superiority of the South Carolina Phosphate is fully demonstrated by the fact that most of the leading manufacturers of Artificial Fertilizers are now using, or making arrangements to use it, as the Phosphatic base of their preparations, and large quantities are being shipped to Europe.

The various preparations of the Maryland Fertilizing and Manufacturing Company are made under the personal supervision of a Manufacturing Chemist of thirty years' experience, and are confidently recommended to the Agricultural community.

## LAWRENCE SANGSTON, President,

aug-1y

Office, 58 Exchange Place, Baltimore, Md.

# NAVASSA GUANO,

## The only reliable source of Rich Bone Phosphate of Lime.

The attention of manufacturers of Artificial Manures and agriculturists is called to the following analysis of Navassa Guano. The fact alone of a good and increasing market having been found in Europe for this guano, whilst none of the many Phosphates for sale in this country can there find a purchaser, speaks as favorably for the richness and reliability of our guano as it is possible, and the further fact that it is the base of nearly all the well known Artificial Manures now manufactured, and the recommendation of it by such men as Prof. Voelcker, Sibson and Liebig, is sufficient guarantee to the user that by its selection he has obtained the richest Phosphatic Material extant. We guarantee the guano to contain a given amount of Bone Phosphate of Lime, to be anlyzed upon arrival by any competent chemist the purchaser may select. Supplying the trade with this Guano in fine powder, packed in strong bags, containing twenty per cent. more Phosphate than any article now offered, at $30 per ton, or crude, direct from Navassa Island, at proportionally low rates.

LABORATORY, 11 SALISBURY SQUARE, FLEET STREET.

*Analysis of six samples, representing that number of cargoes, lately brought to England.*

| | No. 1. | No. 2. | No. 3. | No. 4. | No. 5. | No. 6. |
|---|---|---|---|---|---|---|
| Moisture | 13.61 | 2.73 | 5.51 | 7.70 | 8.77 | 13 07 |
| Water in combination and Organic Matter | 6.72 | 7.39 | 6.50 | 7.04 | 6.67 | .... |
| *Phosphoric Acid | 30.88 | 32.48 | 31.85 | 31.98 | 31.23 | 31.64 |
| Lime | 32.56 | 31.06 | 37.73 | 35.10 | 37.22 | 37.08 |
| Oxides of Iron, Alumina, Carbonic Acid, &c | 13.88 | 20.16 | 16.09 | 15.60 | 13.80 | 16.01 |
| Insoluble Silicious Matter | 2.35 | 3.18 | 2.32 | 2.58 | 2.31 | 2.22 |
| | 100 | 100 | 100 | 100 | 100 | 100 |
| *Equal to Tribasic Phosphate of Lime (bone earth) | 67.41 | 70.90 | 69.50 | 69.81 | 68.18 | 69.07 |

The commercial value of Navassa Guano, it is scarcely necessary for me to say, is mainly regulated by the amount of Phosphoric Acid which it contains. In the foregoing analysis the percentage of Phosphoric Acid was accurately determined.

AUGUSTUS VOELCKER,
*Prof. of Chemistry to the Royal Agricultural Society of England.*

*Remarks and Analysis by Dr. Sibson, of London.* 11 *Eaton Terrace, St. John's Wood, Dec.*, 1867

Amongst the natural deposits of phosphates now at command for furnishing the constituents of our super-phosphates and other prepared manures at present so extensively consumed in our fields, that of the Island of Navassa, lately brought to notice, appears to be one of the most important. In the search for Natural Phosphates, now pretty actively prosecuted, materials of this description are sometimes found, which may possess a certain amount of scientific interest, but are of no practical importance, solely on account of their insignificant quantity. Again, a phosphate possessing almost every desirable quality, may be excluded from the market by the unfortunate fact of its percentage of Phosphate of Lime being too low. Neither of these drawbacks, however, attach to the Navassa Guano.

As I find from analyses of several cargoes lately brought to this country, that the Navassa Guano possesses a high value, I consider that it merits more than ordinary attention.

| | No. 1. | No. 2. | No 3. | No 4. | No. 5. | No. 6. |
|---|---|---|---|---|---|---|
| Moisture and Water of Combination | 10.24 | 9 25 | 5.73 | 12.90 | 11.15 | 6.53 |
| *Phosphoric Acid | 32.94 | 32.57 | 33.43 | 32.21 | 31.27 | 33.03 |
| Lime | 37.91 | 37.34 | 40.15 | 36.13 | 34.90 | 37.20 |
| Carbonic Acid | 1.30 | 1.20 | (not determined.) | | 1.68 | 1.02 |
| Equal to Carbonate of Lime | 2.95 | 2.72 | " | " | 3.75 | 232 |
| Oxide of Iron, &c | 15.36 | 17.18 | 17.85 | 16.63 | 15 83 | 18.24 |
| Insoluble Matter | 2.25 | 2.46 | 2.84 | 2.13 | 5.17 | 3.98 |
| | 100 | 100 | 100 | 100 | 100 | 100 |
| *Equal to Tribasic Phosphate of Lime | 71.36 | 70.57 | 72.43 | 69.80 | 67.76 | 71.58 |

The average percentage of Phosphate of Lime, in most samples, I find to be over 70 per cent., which as an average, is higher than most Phosphatic materials now on the market.

ALFRED SIBSON, F. C. S., &c. *Royal Agricultural College, Cirencester, England.*

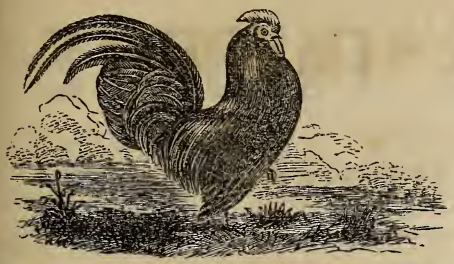
*Analysis by Dr. Liebig, Baltimore, of cargoes lately imported.*

Bark Savannah...June 8, 1868, containing, crude, 69.94—when dried; 76.61 per cent of Bone Phosphate of Lime.
Brig Cyrus Fassett, " 27, 1868, " " 68.89 " " 75.16 " " "
Brig Fidelia..... " 10, 1868, " " 68.87 " " 75.44 " " "
Brig M. E. Banks..May 8, 1868, " " 66.03 " " 73.59 " " "
Brig Romance....June 16, 1868, " " 69.11 " " 76.61 " " "
Brig E. H. Rich..Sept. 21, 1868, " " 68.57 " " 74.56 " " "
Brig Diego.....Aug. 12, 1868, " " 67.00 " " 75.16 " " "

For Sale by Navassa Phosphate Co.

**R. W. L. RASIN, General Agent,**

dec-tf 32 SOUTH STREET, BALTIMORE.



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### THE MODEL HOG OF AMERICA.

Enclose stamp for its description, and a variety of other Thorough-bred and Imported stock, including *Cashmere Goats, Cattle, Sheep,* and the celebrated pure *White Holland Turkey, Black Java and Crevecœur Fowls*, with many others.

sep-tf L. B. SILVER, Salem, O.

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## MARYLAND SAW MANUFACTORY.

### HENRY C. BROWN & CO.,

Manufacturers of every Description of

## CAST STEEL SAWS,

ON THE MOST APPROVED PRINCIPLE.

**UHLER'S ALLEY, 1 door from Charles,**

*Between Lombard and Pratt Streets.*

**And 85 N. FRONT STREET,**

BALTIMORE.

Circular, Mill, Cross Cut, Pit, Hand, and Wood Saws. Saws of every description repaired. An assortment of Saws of superior quality and of every description always on hand. ☞ Orders executed with punctuality and dispatch. je-1y

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## COMMISSION MERCHANT,

And dealer in

Agricultural Implements, Produce,

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Saml. L. Worthington, Esq., Cockeysville, Md.
Thos. L. Worthington, Esq. " " oct-1y

# NEW BRICK MACHINE.

*For tempered clay—common labor only required—worked by one man—makes* 500 *an hour*, $110—*by a horse*, 800 *an hour*, $300—1,200 *an hour*, $400—*by steam*, 2,000 *an hour*, $500—3,000 *an hour*, $700.

### DRYING TUNNEL

For drying in twenty-four hours Bricks, Fruit, Vegetables, Broom Corn, Hops, Lumber, Pea-nuts. Bricks moulded one day go into the kiln the next all the year.

HOT BLAST KILN, by which one-half the fuel is saved—220,000 bricks have been been burned with 53 cords.

REVOLVING SEPARATOR, which pulverizes the clay, and frees it from stone. A piece of limestone, the size of an acorn, will burst a brick.

For further particulars, in a pamphlet (eighth edition, enlarged) giving full instructions on brick setting and burning, with wood or coal, address, *sending* 25 *cents*,

FRANCIS H. SMITH,
P. O. Box 556,
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Manufacturer of

## Saddles, Harness & Collars

No. 76 NORTH CALVERT STREET,

*Near Pleasant St.* **BALTIMORE, MD.**

☞ A large assortment of BITTS, STIRRUPS, GIRTHS, &c., always on hand.

☞ Orders from the country promptly attended to. oct-1y

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### 140 Baltimore Street,

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**Mantle and Pier Mirrors, Bases, Cornices, Picture Frames,**

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Fine English, French and German ENGRAVINGS—a large stock constantly on hand.

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PLATED ALBATA Forks, Spoons, Ladles, Castors, Tea Sets, Liquor Stands, Urns, &c. Ivory and Bone Handle Table and Desert **Knives & Forks, Carvers, Steels,** Butcher and Bread Knives, &c.

Planished, Japan and common TIN WARE, in all its varieties.

Wooden Ware, fine and common Hardware, Baskets, Willow Ware, Door Mats, &c.

Sweep, Hand and Dust Brushes; Feather Dusters of all descriptions.

Waiters and Tea Trays, all sizes and varieties.

Devonshire Portable Carpet and Sewing Chairs, Table Mats, Napkins, Rings, Knife Boxes, &c.

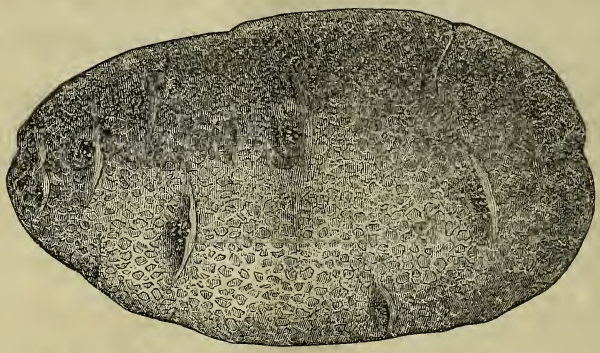
Cedar Chests of all sizes.

**Refrigerators** of the Dr. Kane and Waterman's Pat- fe6t

# SEED! SEED! SEED!

Farmers and Gardeners of Maryland and the Southern States will find at our Warehouse every variety of FIELD AND GARDEN SEEDS adapted to Southern cultivation.

E. WHITMAN & SONS, 22 and 24 S. Calvert Street, Baltimore.



## Early Rose Potatoes.

We have succeeded in securing a few barrels of this justly celebrated Potato, which has created so much excitement in the community. Those we have are pure and genuine, and we will sell them at New York and Boston prices, viz: 1 pound for $1, or $5 for one peck.

We notice reports, from parties who planted the ROSE POTATO last year, of a yield of one barrel from one pound planted, and that one hundred per cent. is quite common. Address, E. WHITMAN & SONS, 22 and 24 S. Calvert Street, Baltimore, Md.

## PRINCE EDWARD ISLAND BLACK OATS.

Just received and for sale. Price $5 per sack of two bushels. Weight 40 pounds to the bushel. Address, E. WHITMAN & SONS, 22 and 24 South Calvert Street, Baltimore, Md.

## FERTILIZERS.

The Fertilizer recommended by the farmers of Maryland and Virginia as the best and cheapest is ANDREW COE'S SUPER-PHOSPHATE. Price $60 per ton of 2,000 pounds. For sale by E. WHITMAN & SONS, 22 and 24 South Calvert Street, Baltimore, Md.

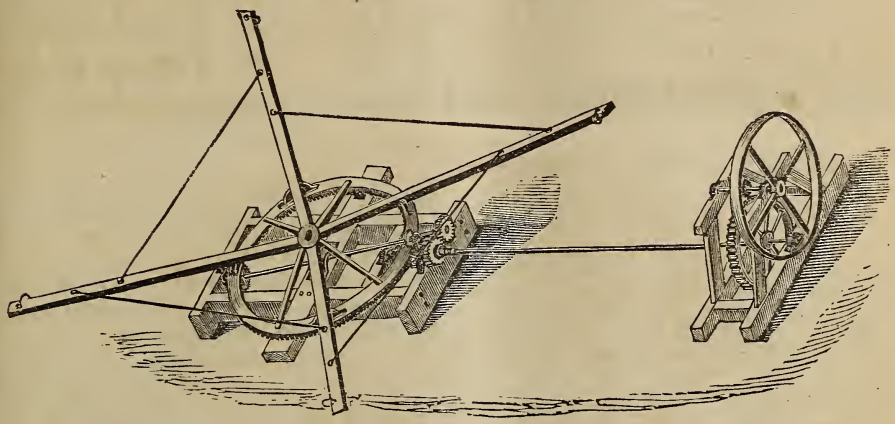
## GROUND BONE

Is recommended as an excellent Fertilizer. Price $45 per ton of 2,000 pounds.
For sale by

**E. WHITMAN & SONS,**

feb-tf 22 and 24 SOUTH CALVERT STREET, BALTIMORE, MD.

# Horse Powers and Threshing MACHINERY.



## WHITMAN & SONS' DOUBLE GEARED POWER.

Among the great variety of Horse Powers now in use in our country, there is none more simple or more durable than this. It runs lighter and will do more work, with the same number of Horses, than any machine in use, and we can confidently recommend it as the best and most desirable machine in the market.

## PRICES.

| | | | |
|---|---|---|---|
| Whitman's Double Geared Horse Power, (the most substantial power made,) | $175 | Whitman's Two Horse Railway Power | 175 |
| Pelton Triple Geared Power, 10 horse | 125 | " One " | 140 |
| " " 8 " | 120 | " 24 Inch Premium Iron Cylinder Thresher | 80 |
| " " 6 " | 110 | " 20 " " " " | 70 |
| " " 4 " | 90 | Straw Carrier for either size Thresher | 25 |

## GRAPE VINES & GRAPE WOOD,

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**AZADIA VINEYARD,**

*NEAR WASHINGTON, D. C.*

A large stock of splendid one and two year old GRAPE VINES of the following varieties: Adirondac, Delaware, Concord, Iona, Rogers' Hybrids, Salem, &c. These vines are layers, and one and two eye cuttings, grown in the open air.

These vines and grape wood will be sold very low. For further particulars apply to

DR. JOHN B. KEASBEY,
312 F Street, Washington, D. C.

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## 10,000 CONCORD LAYERS,

**2 YEARS OLD FOR $400.**

Address GRANVILLE S. PERRY,
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## PURE BRED FOWLS

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## Chester White Pigs.

Wholesale and Retail Price List sent free.
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